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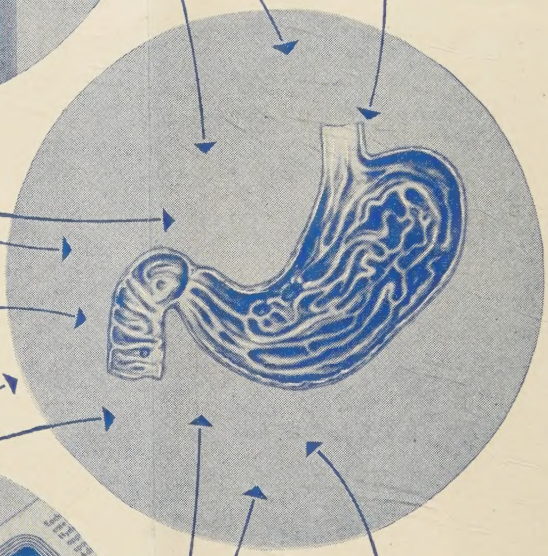

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experiment 1. Does Dexedrine Sulfate, by controlling appetite, decrease food intake and body weight in human subjects?

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NOVEMBER, 1947

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Dr. Klumpp Proposes Planned Old Age Retirement

Dr. Theodore G. Klumpp, president, Winthrop-Stearns Inc., recently proposed at the annual meeting of the New Haven Medical Society, that compulsory retirement by 1980 of all workers 45 years of age or older was foreseen if the present archaic system in this country is maintained of "pensioning off faithful retainers" solely on the basis of calendar age.

He said that the weight of our population is shifting toward the older group and that we cannot persist in dumping workers in the "old age boneyard" when they reach a fixed age. He also warned of a severe economic dislocation ahead, citing statistics of age groups in this country to prove that by 1980 there would be a potential labor surplus of 30 million workers if the elderly were scrapped summarily.

"Today, 33.3 percent of our population is over 45 years of age," Dr. Klumpp continued. "It has been conservatively estimated that we will have not less than 150 million people by 1980. This means that by that time there will be 81 million, 45 years and over.

"In the light of the all-time employment record of almost 60 million gainfully employed which has recently been attained, this means that in less than 33 years we shall have more individuals over 45 than the total number employed at the present time."

Among the important steps in solving the problem of old age versus youth in the matter of jobs, Dr. Klumpp stated, is the successive reduction in working hours for all workers rather than reducing more and more older workers to a state of parasitism. He predicted a thirty-hour work week for industry in a generation.

$250,000 Contributed to NYU-Bellevue Fund

A contribution of $250,000 has been extended to the New York University Bellevue Medical Center Fund, as revealed in the authorization by the directors of Standard Oil Company, New Jersey.

This donation grants $100,000 for the construction and initial equipment of laboratories in the Institute of Industrial Medicine; $50,000 for clinical facilities in the University Hospital; $50,000 in support of the general program; and $50,000 for the support of original research relating to the petroleum industry. The last amount will be given in equal annual installments over a period of five years, commencing in 1948.

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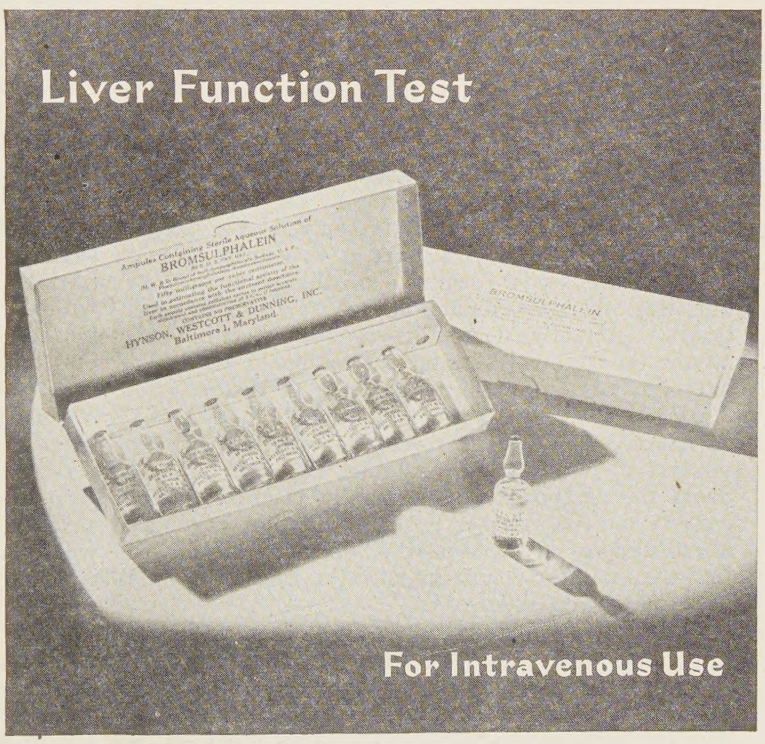

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Open Forum

The Long Road To Scientific Medicine

T. SWANN HARDING
Falls Church, Va.

The road to scientific medicine is very long and we have by no means reached the end of it. Yet the ancients were often strangely prescient, possibly in an intuitive way.

The ancient Egyptians recognized insects as agencies of disease and wore amulets in the shape of flies or bugs to ward them off, a curious mixture of the advanced and the superstitious. The Mesopotamian god of disease was represented as a gnat; Beelzebub was originally a fly demon. Some savage tribes of Africa actually used long words signifying "the little demons that get into the blood out of the air!" They made patients who were wracked with chills and fever chew bitter roots. The Irambas followed the custom of letting mosquitoes bite the paralyzed; Wagner Jaurez of Vienna was finally awarded the Nobel Prize for treating paretics by giving them malaria. It's a long road.

The physicians of Pliny's time agreed to differ about the merits of drinking water. Rain water was judged as rather too light; they therefore preferred snow water, which they regarded as heavy water. Ice water was a special delicacy. Water from the earth was heaviest of all but, as Pliny justly remarked, how can the sense and the feeling of the stomach determine these things? Nero used to boil water and then put it in a glass bottle surrounded by snow to draw out the evil quality. Today chemists make heavy water and physicians say that drinking water with meals is not as bad a habit as they formerly thought it was.

In discussing the nature and cause of the plague at Athens in 430 B. C. Lucretius wrote that: "just as there are seeds (semina) of things helpful to our life, others fly about that cause disease and death." Actually Lucretius was perfecting his atomic theory but his statement strangely resembles later theories of the germ causation of disease.

Marcus Terentius Varro, who lived 116-27 B. C., anticipated the modern discovery of the cause of malaria by writing: "In building houses you must avoid the neighborhood of marshy places . . . because when the marshes begin to dry they engender a multitude of invisible insects which are introduced into the mouth and nostrils with the inhaled air and occasion serious illnesses."

Sixteenth century plague medicine is now said to have been much more scientific than once was supposed. Many historians have accused the plague doctors of having been little more than magicians. Yet the local governments, as well as the City of London, often tried to combat the plague by methods that might well have been used by a modern health officer under similar circumstances.

In the sixteenth century special inspectors hunted out plague victims and people were prevented from banding together. Bedding and other articles used by plague sufferers were subsequently burned and their houses were marked. Streets were constantly being flushed by the citizens while beggars, idlers and wanderers were segregated. Feasts, assemblies and theatres became a thing of the past. Dogs, cats and rats were exterminated. Considering the period, all this can be attributed to wise thinking. Therefore, it was not held by those of sound intelligence that the plague was a supernatural visitation, even though prayers were offered for its remission.

Books published soon after 1603 indicate that vomits, drinks and wholesome fumes were utilized to combat the plague. Learned physicians gave instructions for ventilating rooms and prescribing medicine which would cause sweating. Citizens were instructed to keep their houses, yards and ditches clean. Community life was thus regulated and restricted.

Preventive medicine was not born yesterday! Old wives and folk lore remedies exist today along with scientific medicine. Modern medicine itself is not uniformly scientific. Old wives' tales should be compared rather with modern quackery than with the methods used in progressive clinics. As early as 1651 books were published to lampoon and parody quacks. There must have been something superior to quackery.

Ignorance and wisdom, science and quackery, always live side by side. Many people today have ideas similar to those harbored by the lower intellects of yesterday. But the highest intelligence witnessed in the past often achieved an eminence to be envied by the best minds of the present.

Blackwood's Edinburg Magazine for January, 1828 reviewed a book by "a Physician" entitled, "Sure Methods of Improving Health and Prolonging Life". The author divided the diet into liquid and solid and the reviewer confessed to "a confused recollection of having heard this discussion before".

In fact the reviewer proceeded to spoof the Physician's book unmercifully. When the physician held that a man who had subsisted on partridges without vegetables for eight years, suffered from putrefaction, the reviewer felt that a man might find himself in quite the same fix after eight years on potatoes. He also denounced whole-wheat bread, because he found it had a sweetish, damp taste, adhered abominably to the tongue and palate, and was generally gritty and full of seed and small stones. Respectable beggars spurned it. However, the physician contended that a dog, fed white bread only, would pass away after fifteen days, whereas when fed coarse bread with water its health could be preserved indefinitely. (Was this the discovery of vitamins?)

The reviewer deplored water drinking, declared that "the best authenticated water drinkers are very apocryphal," and "that more people get their death by drinking cold water than any other fluid." He denounced "water sots," preached great irregularity of habits, the avoidance of whole wheat bread, sharp indulgence in alcoholic liquors, and remarked that golf clubs were an amiable association of old men only. By "old" he meant aged forty or more.

liver disorders

cirrhosis
fat infiltration
functional impairment
toxic hepatitis
infectious hepatitis

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If you have a library handy which stocks this old volume you will enjoy the book review enormously. It illustrates that the development of general ideas in medicine, which can alone perfect medical science, is a slow process.

Medicine began as a practical art and is evolving into an applied science. In 1745 James Lind described the cure of scurvy with lemon juice and, in 1840, Steinhäuser, the cure of rickets with cod-liver oil. If these doctrines had been enunciated by persons of great prestige they might have been accepted clinically, but they did not have that good fortune. Time passed and they were forgotten.

In spite of the urgency of the scurvy problem in the eighteenth century and that of rickets in the nineteenth, no proof or disproof of these observations was established. Because it is not the nature of a practical art to seek scientific certainty the truth remained undistinguished in and among many and varied opinions current about these two diseases for more than 150 years.

As late as 1911 the admirable *Encyclopedia Britannica* inclined to ascribe rickets to an intestinal toxin and scurvy to an unknown microbe. Physiology for long years after its establishment as a science had no interest in such matters. It approached them with reluctance, if at all. When the cause of scurvy at last came to be scientifically ascertained in the classic experiments of Holst and Fröhlich, it was 173 years after Bachstrom had categorically and correctly announced its cause and 162 years after Lind had described its cure. Moreover, the ultimate discovery was made in the course of a research investigation undertaken for another purpose.

Progress to generalization makes medicine scientific. Progress was made when a certain considerable group of diseases could be classified as caused by malnutrition and when it was found that the feeding of certain specific chemical substances (vitamins) would prevent or cure these diseases.

Early in medical history diseases were classified empirically on a symptomatic basis and via obvious signs like fevers, tumors, declines, and so on. Later organic implications were observed and physicians began to speak of lung fever, renal dropsy, splenic anemia, or pancreatic diabetes. Finally lung fever gave place to pneumonia and brain fever to meningitis.

To the ancient physician a febrile disease in which the patient remained in a stuporous or typhoid state was typhoid fever; physicians of a more enlightened era, noting the intestinal localization of the disease, called it enteric fever; physicians today regard the same disease in terms of its cause, the typhoid bacillus, *Eberthella typhi*.

Formerly such unrelated processes as chronic ulceration of the lungs, a general swelling of the lymphatic glands, progressive destruction of the spine and cheesy degeneration of the kidneys were regarded as separate clinical entities. But finally

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their frequent associaton led to suspicion of common origin. The discovery of the bacillus causing tuberculosis proved this.

Thus scientific progress is achieved, but it is a long long road. Sciosophy always dogs the footsteps of science, the ignorant and superstitious living in the same localities as well as the same era with the most advanced minds.

Granite Gables.

Markle Foundation Grants

An opportunity to start a career in academic medicine is offered to young scientists with the necessary training to hold a regular faculty appointment and to conduct original research through a new program of post-fellowship grants, announced by the John and Mary R. Markle Foundation. The purpose of the program, is to attract much-needed talent to academic medicine by giving promising young scientists academic security and financial assistance for a period up to five years. The program will be conducted in cooperation with accredited medical schools in the United States and Canada. Grants of $25,000, payable to the cooperating school at the rate of $5,000 annually for a five-year period toward the support of each successful candidate or his research or both, will be available beginning with the academic year 1948-49. If the plan proves successful, the Foundation will appropriate a total of $1,250,000 by 1953.

Candidates, recommended by medical schools will be limited to young men and women with a particularly strong interest in research and teaching in any of the clinical or pre-clinical sciences or in the sciences basic to medicine. They will have had training to qualify them to receive a regular faculty appointment and to conduct original research. The final choice will be made, on the basis of the school's recommendations, by regional committees appointed by the Foundation, those chosen will be known as Scholars in Medical Science. No fixed number of Scholars will be appointed in any year, but it is expected that approximately fifty will receive appointments during the five-year period. For each Scholar, the school will determine salary and academic rank, encourage research by setting reasonable limits upon teaching and other non-research activities, provide laboratory facilities, and, if necessary, make a financial contribution toward the support of his work.

The Scholar program places the emphasis on the personal qualities and scientific and teaching abilities of the men and women chosen, rather than upon particular research projects or teaching fields in which they may be interested. A pamphlet covering the details of the plan has been sent to all deans of accredited medical schools.

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*Lehr, D.: Proc.Soc.Exper.Biol. & Med. 58:11 (Jan.) 1945

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Problem Drinking

With the publication of the booklet, *The Problem Drinker, A Frank Discussion Of How The Problem Of Uncontrolled Drinking May Be Solved By Medical Science,* spearheading a nation-wide campaign to raise $200,000 a year initially, The Research Council on Problems of Alcohol hopes to establish a series of research diagnostic treatment centers in leading medical schools and their affiliated hospitals throughout the country.

Organized ten years ago, The Council has been sponsoring individual research projects among leading scientific institutions to get at the fundamental causes of problem drinking and to develop effective methods of treatment and prevention. A center has already been established at Cornell University Medical College—The New York Hospital under a grant of $150,000 covering a five year period. A chain of such centers, The Research Council feels, will provide many of the answers and much of the services needed to cope with this much neglected medical problem.

Among the men of science, medicine, education and government who comprise the Scientific Committee and Board of Directors are:

Dr. Frank Lahey, director of the Lahey Clinic in Boston, Massachusetts and past-president of the American Medical Association; Dr. Adolf Meyer, professor emeritus of psychiatry and Dr. Curt P. Richter, associate professor of psychobiology both of Phipps Psychiatric Clinic, Johns Hopkins Medical School: Dr. James R. Angell, public service counsellor to National Broadcasting Co., and past president of Yale University; Dr. Ray Lyman Wilbur, chancellor of Stanford University; Hon. Alfred E. Driscoll, governor of New Jersey; Hon. Rodney H. Brandon, former director of Public Welfare for Illinois; Hon. Austin H. MacCormick, executive director for The Osborne Association and past commissioner of correction for the City of New York.

Included also are: Dr. Robert P. Knight, chief of psychotherapy service for The Menninger Clinic in Topeka, Kansas: Howard Coonley chairman executive committee and past president National Association of Manufacturers and director for the Waldorf Co.; Dr. George Wheeler, assistant director New York Hospital, Dr. Herbert S. Gasser, director Rockefeller Institute for Medical Research; Dr. Ross A. McFarland, Fatigue Laboratory, Dr. Robert Fleming, instructor in psychiatry, Dr. Merrill Moore, associate in psychiatry, and Dr. Harry C. Solomon, director Boston Psychopathic Hospital—all with Harvard; Dr. Willis R. Whitney, Honorary vice president General Electric Co. Charles N. Wonacott, Council Board of National Missions of the Presbyterian Church, Dr. Edward A. Strecker, professor of psychiatry and Dr. Thorsten Sellin, professor of sociology—both of the University of Pennsylvania; Dr. Anton J.

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Carlson, professor emeritus of the University of Chicago and Dr. I. Ogden Woodruff, Consulting physician, Bellevue Hospital.

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Aid For Premature Babies

A new approach to the problem of sustaining life in prematurely born infants has been reported by a California clinical research group. Using potent male sex hormone preparations, Doctors E. Kost Shelton, Arthur E. Varden and Jerome S. Mark of the University of Southern California Medical School and Los Angeles General Hospital have found that Oreton and Oreton-M work wonders on the weight of undeveloped and undersized infants. The hormone is equally effective for girls as for boys.

Approximately 100 babies, each weighing less than five pounds, were given the male hormone orally as methyl testosterone or by injection as testosterone propionate. They all lived, gained weight rapidly, grew stronger, larger and matured faster than babies from whom the hormone was withheld. Moreover, the hormone-treated babies did not turn blue as often or as easily as did their untreated companions.

* * *

Charles Emil Quincquad is accredited with the first report of acne decalvans, so we have *Quincquad's disease*. Lailler and Robert independently described the affection a year later (1889).

Trichorrhexis nodosa is named *Beigel's disease* after Herman Beigel. Wilson is said to have first described the disease in 1849. Beigel described chignon fungus, caused by sclerotium.

Tuberculin had been introduced the same year in which Sebastian Giovanni reported the rare nodular disease of the hair known as *Giovanni's disease.*

Martin Engman described the disease infectious eczematoid dermatitis, known as *Engman's disease,* in 1902. Engman has a rich bibliography showing much work done in dermatology and syphilis.

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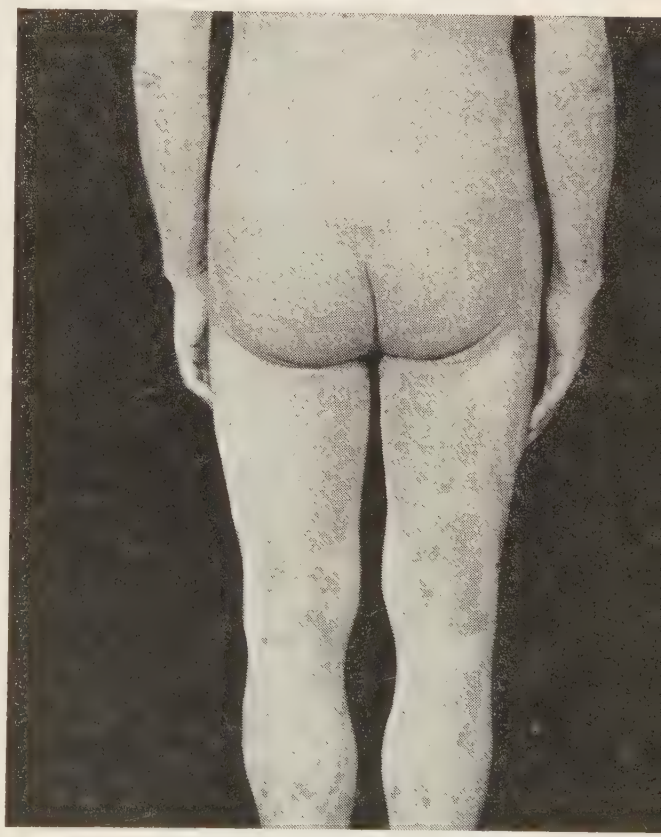

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The University of Chicago, scene of a projected $5,150,000 atomic cancer research development, has announced that its current drive to raise the remaining $2,570,000 is scheduled to run until the end of the year.

A 170 inch cyclotron to be used as a super-radiation instrument for the treatment of cancer; a $2,000,000 isotope building, plus another building to house these cancer experiments, thus minimizing the danger of contamination are on the production agenda.

Three outstanding factors combine to make this project of nation wide importance:

1. University scientists have had five years of experience in dealing with atomic science in relation with the atomic bomb.
2. The university clinics are unique among medical organizations of the country, both in its full-time staff for teaching and research and its close working relationship between basic and clinical scientists.
3. Cancer research is already well established on a large scale at the institution with a 22-man committee on cancer correlating the work of seventeen basic and medical science departments.

Veteran Volunteer Program To Be Under Discussion

Representatives of 24 national organizations, comprising the National Voluntary Service Hospital Advisory Committee, will discuss the orientation and indoctrination program for volunteer workers in Veterans Administration hospitals, when they meet with VA officials in Washington, this month.

The volunteer worker, so valuable in keeping the nation aware of the debt it owes its disabled veteran, will continue to serve if VA is able to continue the program already under way with the help of the Voluntary Service Organizations.

Though there is no evident shortage of volunteer workers now, it is feared that as interest in veterans' affairs diminishes, with the number of veteran patients increasing, the problem will become critical unless the conscious citizen continues to lend a hand to VA through the Voluntary Service.

Volunteer workers fall into these classifications of activities at VA institutions: medical rehabilitation, special services, social service, and nursing service.

* * *

Francis Xavier Dercum, of Philadelphia gave the original description to the disease known to us as *Dercum's disease,* or adiposis dolerosa.

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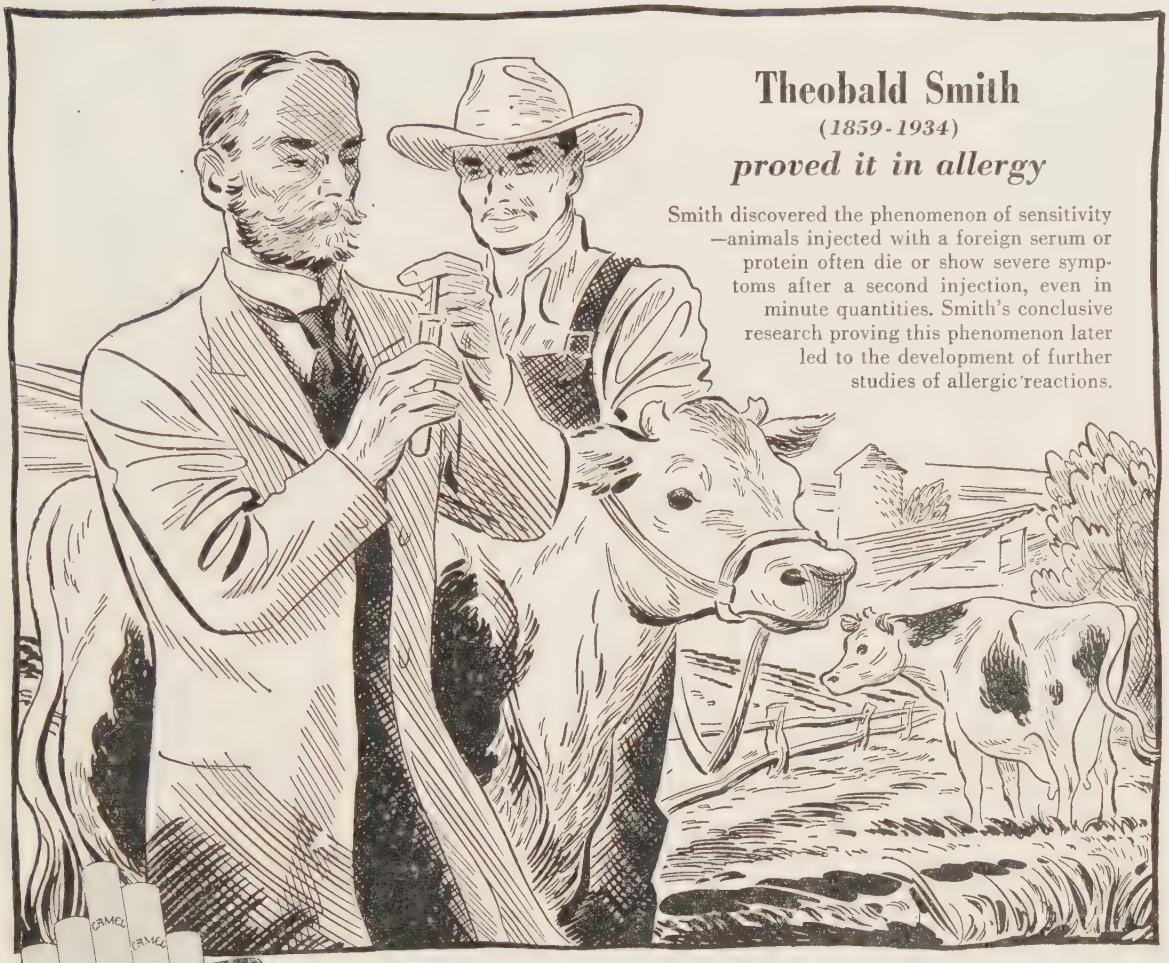

Theobald Smith
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Smith discovered the phenomenon of sensitivity —animals injected with a foreign serum or protein often die or show severe symptoms after a second injection, even in minute quantities. Smith's conclusive research proving this phenomenon later led to the development of further studies of allergic reactions.

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Critique

Industrial psychiatry All too frequently industrial physicians lack training in psychiatry and lament it. They cannot spot malingering or evaluate the mental factors in disease or convalescence. Yet a compensation neurosis is almost as much a disease entity as a mental disorder. Organized scientific management is often too mechanistic and allows too little for important mental and emotional factors; engineers can effectively control material things, but not workers. Many big industrial companies have found psychological tests invaluable, but guidance of the employee's entire working life must be an adjunct to the tests. The idea that certain jobs are more degrading socially can be uprooted by the humane method of discovering and allowing for organic deficiencies and making work conditions more suitable generally.

Pulse taking: The *J. A. M. A.* discussed pulse taking, June 29, 1929. It quoted the eminent Dr. Johann Ludwig Formey: "The evaluation of the significance of the pulse in disease is made very difficult by the fact that there is no normal pulse and that therefore it is impossible to know when any deviations from the normal are pathologic. Every individual, every age, every constitution, each sex, is in itself of determining influence on the character of the pulse. These factors are further modified by the climate, the seasons, the mode of life, and the emotional make-up of the individual." Also Volkmann said, "Counting the pulse of persons whose previous rate is unknown is worthless for the diagnosis and treatment of disease, and the use of the second watch at the sickbed approaches charlatanism unless one takes pains to inquire into the many circumstances on which the pulse rate is so very dependent." The existence of fluctuations induced Boas and Weiss to make the investigations reported in the journal aforementioned. They used cardiotachometric methods over periods of hours on subjects asleep and awake in different positions. The rate of 62 is usually accepted for males and 69 for females, but many who made previous tests did not rule out exciting influences. A range of 50-80 was found for males, 55-90 for females; uncommon rates were found normal for specific individuals. "The tremendous variability of the normal heart rate, as well as its marked reduction and relative stability during sleep, have been demonstrated." A patient with functional tachycardia varied from 110 when active to 75-80 asleep, though the rate might be 100 when sitting quietly. The "normal" was 85-96 by physical examination which dropped to 55-60 when asleep, rose to 95-100 when washing and preparing for breakfast. One female varied from 83 on arising to 95-100 while dressing, back to 75-90 by breakfast.

Of all things Did you know that there was an Anti-Railroad Journal in England in 1835 which, according to its own admission, fought only on the side of truth? It contained exposures of the railway system and denounced the railroads from first page to last, asking subscribers to buy its pamphlets—*Rail-road Impositions Detected!* It was fostered by the provost and three fellows of Eton College, 15 canal companies, and 3 steam-wagon companies, and was full of high ideals and flowery language.

What we don't know Typical questions never yet decided scientifically are whether bureaucracy, committee rule, and representative government are really good methods of getting work done. Do administrative committees work better than executive committees or not? Can bureaucracy be purged of its red tape—a defense mechanism for small minds—to become what it should be? Is an advisory committee better than an executive one? Just how do committees work anyway? Some are ruled by one man; some members contribute their knowledge and others do not. See Rivers on Psychology and Politics in the Modern Library *Outline of Psychoanalysis,* pages 213-5.

Milk minerals: Said *Science* for September 20, 1929: "Attempts to increase the nutritional value of milk by the simple technique of giving cows and goats more copper salts in their food than they would normally have access to have failed to work. The valuable factor in liver, which has become the up-to-date physician's most substantial prop in treating pernicious anemia, was recently found by Dr. E. B. Hart and a group of investigators at the University of Wisconsin to be copper rather than iron, as was first believed. Liver in the proportions necessary to produce curative effects becomes an exceedingly disagreeable medicine to many patients. Consequently, other foods, which supply the needed element are highly desirable. Naturally the Wisconsin investigators turned their thoughts to various ways of increasing the copper content in other foods. Milk, which in earlier analyses showed from 0.38 to 1.4 milligrams of copper per liter, was found under carefully controlled conditions to have only 0.123 to 0.184 milligrams per liter, an amount not sufficient to prevent rats fed on a milk diet from developing anemia. The earlier figures are believed to be the result of contamination with copper from metal vessels used during analysis. Cows and goats fed on an experimental diet showed milk with the same proportion of copper as that found in recent analyses. Increasing the copper content of their food even in considerable proportions, however, did not produce any increase in the amount of the element in their milk. So anemia patients can't look to milk for relief from liver."

The Critic

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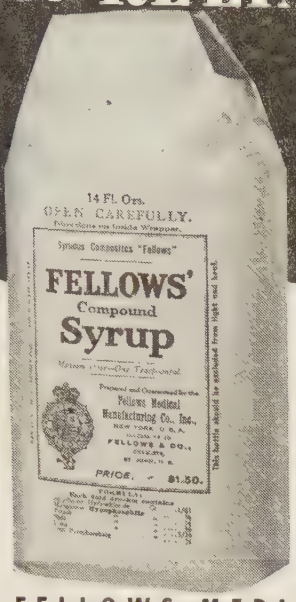

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1. Youmans, J. B.: Virginia Med. Monthly, 72:238, June, 1945

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TREATMENT OF MULTIPLE SCLEROSIS*

Preliminary Report

E. Y. WILLIAMS, M. D.
Washington, D. C.

Because the treatment of multiple sclerosis has been more or less empirical, it was thought desirable to investigate this problem to see whether some form of therapy might not alleviate this condition.

During the last few years, careful studies of the dietary habits of patients with multiple sclerosis revealed that fruit and fruit juices were practically absent from their diet. Attention was first drawn to this when one of our patients, while being treated by the therapeutic means in vogue at that time, commented that during the first attack of this condition she had made better recovery when given fruit juice (predominantly orange juice) by the family and liver diet by her physician. Unfortunately little attention was paid to this suggestion. A couple of years later when another patient also stated that he too felt better when given fruit juice at home by his family during a previous attack, considerable attention was then given to this suggestion. Thereafter, every case of multiple sclerosis was questioned as to his dietary habits.

In our study of this method of approach a total of seventeen cases were seen during the last seven years. There were certain factors in common in these cases:

1. Most patients had used citrus fruits very sparingly and some not at all.
2. Some patients had eaten sparingly of certain fruits while in season, as strawberries, peaches, and grapes; otherwise they did not eat fruits.
3. Most of them were fond of sweets.

Originally our treatment was to institute a regimen with orange juice and liver. This practice was continued wherever possible. The scarcity of food and the ease with which vitamin-C and liver extract could be procured and the dosage evaluated, caused us to show a greater preference for these preparations. Clinical study of these patients convinced us that optimum results were obtained by the following procedures:

1. Ascorbic acid, 400 mgm. daily, preferably intravenously.
2. Liver extract 2 cc. (10 U.S.P.) given two times weekly by injection. (When complaints against frequent injections were raised Vilitron, 4 capsules daily, was substituted for liver therapy.
3. Orange juice, four glasses daily or tomato juice as an occasional substitute.
4. Diet rich in vitamin-C. (2000 calories)
5. Daily exercise of the affected limbs with the intent of getting the patient out of bed as quickly as possible.

Even after the patient was discharged from the hospital this regimen varied but little. While no attempt was made to evaluate the vitamin-C level of the blood before treatment in the earlier cases, in all of the later cases studied this was done, and there was noted a definite level below the normal.

Because the problem of recurrence is very pertinent in this study we tried to follow these cases wherever possible. As most of these patients were in the low income bracket or were migrants, frequent changes in address made it very difficult to follow them. The oldest case we have followed had eight attacks with remissions over a period of fourteen years. Since his last remission eight years ago he has had no new attacks.

In only one instance was the possibility of recurrence suspected. The report from this patient's insurance agent was to the effect that the patient was caught in a shower of rain, developed pneumonia and died. His wife stated, however, that following discharge from the hospital he did not follow the instructions given him nor did he return as requested but took up his previous dietary habits of doughnuts and coffee for breakfast; sandwich, pie and occasionally ice cream for lunch; meat and starchy foods, rarely green vegetables for supper. Fruit as such was never a part of his diet. We believe this might have been a recurrence with pneumonia. So far no other report of recurrence following improvement has been noted or reported in our follow-up.

In the evaluation of improvement noted, a sense of well being was among the first signs. This was followed by sensory improvement, notably numbness and formication. An improvement in muscle

* The vitamin C was supplied by the Geo. A. Breon Company, Kansas City, Mo.

strength was noted next, but because of severe ataxia, confidence in the ability to do things (as walking) was slow. Speech and nystagmus were slow in improving. Ataxia and exaggerated reflexes were the most difficult symptoms to disappear. Even when with encouragement and assistance these patients were made to walk, exaggerated reflexes persisted.

The length of time these patients required for recovery varied with the severity of the disease and the number of previous attacks. In this series the average length of hospitalization was three months. However, it must be admitted that since this is a dietary regimen, even when these patients were discharged from the hospital all attempts were made to urge them to stick to the diet suggested and follow-ups were requested.

It was noted that patients who were permitted to stay in bed and who tried to walk when they felt well enough, showed a great tendency to remain there and become bed-ridden. All patients were encouraged to get out of bed and attempt to stand up and later to walk with support first. Visual difficulties improved in every case in which it was observed and was a very common symptom.

Case Histories

Summaries of two of our cases are presented:

L. R., a housewife, aged 26, was hospitalized on January 26, 1945 because of weakness of her legs and poor vision.

Past history: The patient in the last five years had been hospitalized on two previous occasions for this condition and on the third occasion was seen on our service. Following these attacks she was unable to walk without support.

Findings: Bitemporal pallor, horizontal and vertical nystagmus with vision too poor to be tested. There was inability to walk with marked spasticity. Subjectively there was numbness on the left side and objectively over L_3-L_5. There was exaggeration of all deep reflexes with bilateral clonus, and absent abdominals. Tremors of the hands were severe as was ataxia. Loss of libido was also admitted. The laboratory evidence revealed a low vitamin-C level—4 mgm. by the method of Abt and Farmer. After five months of therapy, the patient was able to walk again and to go to work in a laundry. This was the first relief of its kind the patient had had in five years.

J. McK., a housewife, aged 31, was hospitalized because of severe ataxia and partial blindness.

Past history: She had been ill for two years, practically unable to walk and to see. Because of her crying spells and behaviour she was hospitalized in a psychopathic hospital for several months before being released.

When she was brought to our hospital the findings were bitemporal pallor of the discs, marked impairment of vision and horizontal and rotatory nystagmus. The speech was scanning and there was marked shaking of her head. There were bilateral spasticity, inability to walk with severe ataxia. The rebound phenomenon was slight. Vibratory sense was diminished but position sense was fair. The abdominals were absent and deep tendon reflexes four plus with transient clonus, bilateral Babinski and Hoffman on the right. There was also pathologic laughing and crying.

After three months in the hospital under the afore-mentioned therapy and two months of convalescent treatment the patient was able to walk. Vision gradually improved. The only symptoms that have persisted to any degree have been the slight shaking of her head and walking on a wide base. The patient has had no recurrence of this condition but she is still under therapy. She does everything now for herself after eighteen months and she is now able to walk and go about city unaccompanied.

Comment

The possibility that multiple sclerosis might be a deficiency disease has been suggested by many investigators. Thus Brain (12) recommended very highly a diet of liver; and while the anti-anemic properties of liver are well known, Funk (13) et al, made the claim that liver stood second in meat products as to its contents of vitamin-C (400 I. U. per oz.). Goodall and Slater (14) suggested the use of liver, eggs, fresh vegetables and fruits, with a restriction on cereals, while Gowlland (15) observed a definite improvement in 75 percent of his patients treated with liver. Ramsey with a combination of nicotinic acid, quinine, vitamins B and E noted marked clinical improvement also. Similar clinical improvements have been noted by Aguire (16) with the use of vitamin-E and Moore (17) with nicotinic acid. Brickner (18) and his co-workers are also convinced of deficiency factors in cases of multiple sclerosis.

It is important to note that Randoin and Mazoue (19) showed experimentally that some relation exists between vitamin-C and multiple sclerosis. Similar observations were made by Lepine (20) and his co-workers. Schukru (23) is believed to have produced this disease experimentally in guinea pigs, which like men are unable to synthesize vitamin-C and thus must be supplied directly.

The problem of race and geographic distribution have been investigated by many authors. The opinion so far expressed is that multiple sclerosis is more common among whites than among the darker races. Steiner (24) found this condition to be rare in the southern states and definitely more common in the north. He noted too that it was seen more frequently among Scandinavians and Finns than among Italians and along the southern coast of France. Kolb, (25) however, noted that in a city like Baltimore where the negro population was fairly large, that there were almost as many cases among negroes as among whites. He noted that several authors had found this disease to be practically unknown in the tropics. The writer who once lived in and has revisited the tropics, has never seen a case there though vitamin B_1 deficiencies were seen.

It is to be noted that in the northern part of Europe citrus fruits are rare as compared to Italy and southern France where they are relatively common. The same is true of Florida and other southern

states as compared to Wisconsin, Minnesota and Illinois. Also it must be said that the negro population is not as great in northern states as in the south. This is especially pertinent in view of the observations of Kolb.

Freeman (26) has suggested that patients with multiple sclerosis be given rest and sent to warm climates. The biggest advantage from such a change would seem to be the dietary factor in such an area, plus the lessening chances of infections which a vitamin-C diet may help to prevent.

The Lederle Laboratories (27) have pointed out that wide-spread use of vitamin-C in the American dietary made frank vitamin-C deficiency a rare occurrence. On the other hand they showed how the potency of this vitamin may be destroyed by exposure to oxygen, alkali or heat. It has been further noted by Asher (28) that vitamin-C was lost in fruits that were bruised or stored for long periods and that potatoes lost as much as four-fifths of this vitamin during months of storage so that people of northern climates have a distinct disadvantage in this respect. The factor of diet, therefore, appeared to us to be the most important factor in this disease.

It is not the purpose of this paper to state that multiple sclerosis is caused by vitamin-C deficiency per se, but rather do we believe that its absence permits an easy invasion and demyelination of the nervous system by toxic or infectious agents, and that so-called cases of remissions were most likely those in which the family gave freely of fruit juices which is a common custom irrespective of what other agents might have been administered by the physician. Jungeblutt has stated that if vitamin-C does nothing else it tends to tip the scales in favor of a successful outcome by increasing the forces of natural resistance. This we consider most important.

Summary

1. A form of treatment of multiple sclerosis is here presented which was used in seventeen cases.

2. Certain factors of import were noted initially in these patients:

a. All showed citrus fruits and fruit juices to be absent from the daily diet.

b. Improvement was noted when this was added to the diet (vitamin-C) in addition to liver extract.

c. Patients who were aided and encouraged to walk made quicker recovery than those confined to bed with the hope that they might get up and walk some day volitionally.

3. Under this dietary regimen so far we have had no proven recurrences.

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School of Medicine, Howard University

* * *

Francis Xavier Dercum, of Philadelphia gave the original description to the disease known to us as *Dercum's disease,* or adiposis dolerosa.

Ehrlich had introduced dried blood smears and improved staining methods when Sir William Whithey Gull described myxedema, or *Gull's disease.*

THE CORRECTION OF PROTRUDING EARS

ROBERT ALAN FRANKLYN, M. D.
Hollywood, Calif.

The Joseph technique of removal of an oval section of skin and cartilage from the retro-auricular angle is the most generally accepted method followed today for the correction of outstanding ears. The spring of the cartilage is destroyed by the excision of an oval segment of cartilage in the long axis of the ear with removal of skin from the medial aspect of the ear and from the mastoid process, the skin margins then being approximated.

Fig. 1 Before

Fig. 2 After

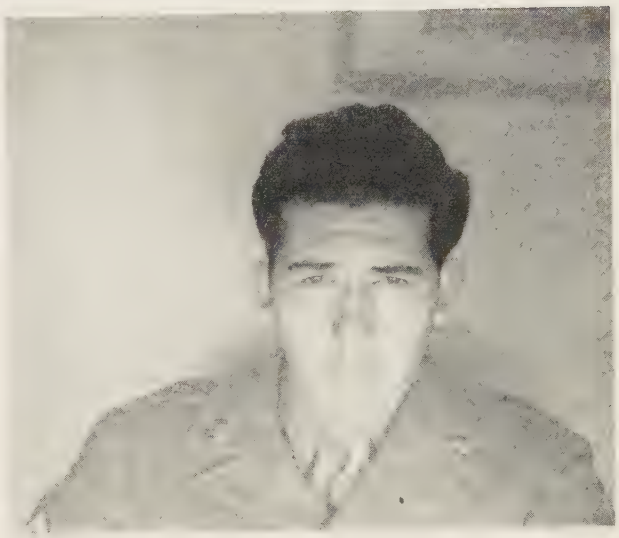

Fig. 3 Before

The objection to the above procedure is that it generally leaves an unesthetic wrinkling of the skin on the outer surface of the ear. Other frequently encountered sequelae are warping of the ear; overcorrection—too much flattening with little retro-auricular angle.

Fig. 4 After

The following technique is designed to overcome the faults of the standard procedure.

Nerve block anesthesia with 2 percent procaine is followed by infiltration along the line of incision anteriorly and posteriorly to separate the tissues and assist in the dissection. A two inch incision is made on the medial aspect of the ear following and just slightly medial to the concavity formed by the antihelix, the superior portion of the incision following either the anterior or posterior bifurcation of the antihelix dependent upon the particular case. The skin is then undermined and freed and the perichondrium exposed. Incise through the medial perichondrium and the cartilage along the same direction as the skin incision up to the lateral perichondrium. A thin longitudinal strip of cartilage is then excised by making a parallel incision 2 mm. from the previous incision—with caution so as not to perforate the lateral skin. The skin is retracted upward and downward and the cartilage incision first made is further extended in order to destroy any remaining spring of the cartilage. A size 0 white silk suture is passed through the medial perichondrium and cartilage at the upper third of the incision and another, if necessary, at the lower third. The sutures are then tightened sufficiently to bring the auricle into the desired position and are then firmly tied. The slight amount of excess skin remaining is removed in an eliptical fashion at the site of the original skin incision and skin closure is made with fine silk which is removed on the fifth post-operative day. Removable stainless steel sutures may be used instead of the buried silk—the wire edges projecting through the skin, fastened with a lead shot and removed in two weeks.

The advantages of this method are that surgery is reduced to a minimum—only slight skin and cartilage excision being necessary—and the result is superior to older methods. (fig. 1, 2, 3, 4)

6715 Hollywood Blvd.

THYROTOXICOSIS WITH NORMAL BASAL METABOLIC RATE, NORMAL CARDIAC RATE, HYPERGLYCEMIA AND ACIDOSIS*

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The basal metabolic rate is always high during the active stage of thyrotoxicosis. Rare cases of hyperthyroidism, according to White, may have basal metabolic rates within the normal range—zero to plus 10 percent. (1)

Levine also states that there are rare instances in which an active hyperthyroidism is going on, and though the basal metabolic rate is perfectly normal, nonetheless cardiac disturbances occur as a direct result of thyroid hyperactivity, (2)

In almost 80 percent of cases of thyrotoxicosis the cardiac rhythm is normal. In the remaining 20 percent the heart rhythm is disturbed, the disturbance consisting almost invariably of auricular fibrillation of permanent nature in two-thirds of the cases and of the paroxysmal type in the other third. In addition there are relatively infrequent cases with auricular flutter. The pulse rate is usually fast, averaging 100 to 120 beats per minute. Rare cases have a normal pulse rate.

As a result of the thyrotoxic state the patient may develop auricular fibrillation, cardiac enlargement and finally congestive heart failure. The prevention of this sequence of events is dependent upon early diagnosis.

Paroxysmal auricular fibrillation is particularly characteristic of hyperthyroidism and may be the single clue that leads one to this diagnosis. In fact it is wise to suspect hyperthyroidism whenever a transient spell of this irregularity occurs.

The thyroid hormone acts as a catalyst to increase the oxidative processes of the tissues. According to Hurxthal it is possible that the heart itself may be the seat of specific thyroid stimulation with local increased metabolism. The tachycardia is not dependent upon nervous connections, but appears to be due to a direct and persistent effect of the hormone upon the cardiac musculature. (3)

In clinical hyperthyroidism, hyperglycemia and glycosuria may be present. The mistake should not be made of interpreting a disturbance of carbohydrate metabolism dependent upon hyperthyroidism as due to diabetes mellitus. Hyperthyroidism results in a state of hypersensitiveness on the part of

* From the medical service of Dr. J. C. Doane, Jewish Hospital, Philadelphia.

the liver for the conversion of glycogen into glucose. This glycogenolytic action may be excited directly but it is probable that the effect is produced by rendering the liver hypersensitive to sympathetic nerve impulses, and possibly to epinephrine. Increased glycogenolysis, and gluconeogenesis, may also result from the increased rate of tissue metabolism. Unless carbohydrates are supplied in abundance the store of hepatic glycogen is depleted. (4)

Whenever the liver is depleted of glycogen there occurs an overproduction of ketone bodies. Ketone bodies are metabolites which are normally present in the animal organism; with an increased production acidosis results. Glycogen depletion results in an increased fat metabolism and a resulting increase in ketone body formation. Ketone bodies are produced only by the liver but cannot be utilized by this tissue. Extra hepatic tissue, particularly muscle, can utilize a certain amount of acetone bodies for the production of energy. The thesis has been presented that the concentration of ketones in the blood is governed by four factors. The factors which tend to increase the level of ketones of the blood are deglycogenation of the liver and decrease in the rate of ketone body utilization by the peripheral tissue. The factors which tend to decrease the level of ketones in the blood are increased utilization of carbohydrates by the liver and increased rate of utilization by the peripheral tissue. Ketonemia and ketosuria are normal physiologic responses to a lack of carbohydrate and an increased fat metabolism in the liver. (5)

The hyperglycemia of diabetes mellitus and hyperthyroidism may be differentiated by the oral galactose tolerance test. Determination of the increase in blood galactose after the ingestion of 40 grams of this sugar has been used as a means of studying thyroid function. In hyperthyroidism the peak of blood galactose concentration ranges from 25 to 150 milligrams per 100 cc., being above 40 milligrams in the great majority of cases (normal maximum 15 to 35 milligrams per 100 cc.). This abnormally high rise is attributed to increased rapidity of absorption of the sugar from the intestine of patients with hyperthyroidism.

The glucose tolerance test may also be employed to differentiate the hyperglycemia of diabetes mellitus and hyperthyroidism. In diabetes mellitus there is an abnormally high rise in the blood sugar (above 160 mgms. percent), the maximum concentration is reached after one hour, the period of hyperglycemia is longer than normal and the return to the post absorptive stage is delayed (more than two hours). In hyperthyroidism the most marked abnormality occurs in the first phase of the glucose tolerance curve, i. e., there is an excessively high rise in the blood sugar but the return to the control level is not as long delayed.

It is well known that hyperthyroidism may masquerade as heart disease, hypertension, neurosis, pulmonary tuberculosis, gastro-intestinal disease or diabetes mellitus. Considerable damage may result before unrecognized hyperthyroidism is finally uncovered. Auricular fibrillation, transient or permanent, unaccounted for by mitral stenosis, hypertension, or coronary heart disease should make one immediately suspect the thyroid gland. Although transient auricular fibrillation occurs in other conditions, of none is it so characteristic and in none does it occur as commonly as in hyperthyroidism. Levine stresses the point that it should be the invariable practice to suspect a toxic thyroid gland whenever this arrythmia is observed even when other forms of heart disease, such as mitral stenosis, are also present.

Case Report: Mrs. G. A., aged 49, was admitted to the Jewish Hospital, on the evening of February 1, 1947, with the diagnosis of diabetic acidosis. Her blood sugar was 378 mgms. percent, blood CO2 41 volumes percent, urinary sugar plus three, and acetone plus four. Her heart rhythm was irregular, the rate at the apex was 168 beats per minute. In spite of the fact that she had been eating well she had recently lost 17 pounds in weight. Four days prior to admission she experienced palpitations and a sense of increasing weakness. When seen by her physician at this time she was placed on quinidine sulphate grains 3 q. i. d. On the day of admission she vomited three times. Sugar was found in her urine on that day, though urinalyses on a few occasions previously disclosed no glycosuria.

The blood pressure was systolic 110, diastolic 70. Respirations were 25 per minute. Temperature 97.2 degrees F. She was alert, poorly nourished, apprehensive and restless. There was a staring expression of her eyes. The thyroid gland was not enlarged. The heart action was irregular. The apex beat was located in the fifth interspace 11 cm. from the mid-sternal line. No bruits were audible. There was a fine tremor of her outstretched hands. The tentative diagnosis was diabetes mellitus with acidosis; and paroxysmal auricular fibrillation.

She was immediately placed on diabetic management. 100 units of insulin were given intramuscularly in a two hour period. 1000 cc. of 5 percent glucose in normal saline was administered intravenously and thereafter fruit juices and water were given orally. To correct the arrhythmia 4 cc. of cedilanid was given intramuscularly and digitoxin was ordered orally for the following day. An electro-cardiogram taken soon after admission showed auricular flutter-fibrillation.

Within 24 hours the fibrillation had subsided and the electrocardiogram disclosed a normal sinus. rhythm, rate 84, and digitalis effects. Thirty-six hours after admission the urine was negative for sugar and acetone. Digitalis was discontinued. The blood count was: Hgb. 13 grams per 100 cc.; R. B. C. 4,740,000; W. B. C. 6,100; polymorpnuclears 55 percent, lymphocytes 45 percent, mononuclears 5 percent, bromsulphthalein test, no dye present at the end of 45 minutes.

There were factors in this case that suggested hyperthyroidism. A B. M. R. on February 4 was only plus seven. However the circulation time was rapid. The arm to tongue time (magnesium sulphate) was 10 seconds, and the arm to lung time (ether) was four seconds. Oral galactose tolerance test disclosed 69 mgms. percent at the end of one

hour and a repeat test a few days later was 82 mgms. percent. A repeat B. M. R. was again within the normal range.

When she was discharged the heart rate and rhythm were normal and the blood sugar level was normal. She was on a diet of CHO 150 P 90 F 90 and no insulin. She stated she felt physically as well as ever.

We wished at this stage to treat her from a thyrotoxic standpoint. Our impression was that in spite of the normal basal metabolic rate and the subsequent normal cardiac rate the presence of paroxysmal auricular fibrillation, hyperglycemia, glycosuria, acidosis, rapid circulation time and positive galactose tolerance tests were indicative of a hyper-functioning thyroid gland. We desired to place her on propylthiouracil therapy but at this point the patient demanded that she be discharged.

Comment

Diabetes mellitus and hyperthyroidism may coexist. It was our impression, however, that in her case we were dealing not with true diabetes mellitus but rather with hyperglycemia and glycosuria secondary to her hyperthyroidism. The preceding history was not typical of diabetes mellitus. Prior to admission there were a number of urinalyses, and in each instance she was found to have been aglycosuric. She had not been on diabetic management; she was following no prescribed diet and was not using insulin. There were no polyuria, polydipsia, skin disturbances, disturbances of vision, numbness and tingling or neuritic pains.

In spite of the normal B. M. R. and slow cardiac rate she presented evidence of thyroid hyperactivity: - staring expression, restlessness, fine tremors, weight loss, paroxysmal flutter-fibrillation, rapid circulation time and positive galactose tolerance tests.

Conclusions

1. Thyroid hyperactivity may be present in association with normal basal metabolic and cardiac rates.

2. The hyperglycemias of diabetes mellitus and hyperthyroidism need to be distinguished from each other.

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CASE HISTORIES OF VITAMIN E THERAPY IN HEART DISEASE

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Case I: *Coronary Thrombosis* (ten years old): White male aged fifty-five, truck driver, first seen June 11, 1946 complaining of pains in the precordia, radiating down left arm with chest pressure. Heart was regular in time and rhythm. Blood pressure 120/80, heart enlarged to left, had been taking nitroglycerin gr. 1/100 daily. Electrocardiogram showed negative T1 and T2 with slurring of QRS in L1 and L3 and absent R4. Urinalysis: 2.2% sugar, blood sugar 214 mgm. On August 29, the patient was given Tofaxin, 200 mgm. daily, and has continued it since. Patient was seen September 22, and claimed he did not have any precordial pain and did not resort to nitroglycerin medication since starting tofaxin. On October 22, patient was re-examined and had no complaints. On November 20, he had a slight pain in the precordia and resorted to one tablet of nitroglycerin gr. 1/100 in one month. Urine negative, blood sugar 125 mgm. per 100 cc. Patient was re-examined January 19, 1947 and had an occasional pain in chest and took one nitroglycerin tablet gr. 1/100. Blood pressure 120/80. Electrocardiogram taken: rate 68, sinus rhythm, left axis deviation, negative T1, depressed T2, negative T waves in all chest leads.

Electrocardiogram findings since June, 1946: June 11, 1946: Rate 50, sinus bradycardia, negative T1, T2, T3, slurring QRS in L1 and L3.

August 29, 1946: No change as in previous electrocardiogram.

September 22, 1946: Rate 63, sinus rhythm, negative T1 and T2, flat T3, pronounced Q1.

January 19, 1947: Rate 48, sinus bradycardia, left axis deviation, negative T1, slightly widened QRS in L1, depressed T2. C F1 negative T wave; C F2 absent P wave; C F3 negative T wave; C F4

negative T wave; C F5 negative T wave, P isoelectric; C F6 depressed T wave, P isoelectric.

Case II: *Hypertensive Heart Disease:* Miss B. A., white, aged 50, stenographer, first seen on March 30, 1946 complaining of sudden vomiting of bright red blood. Patient was immediately hospitalized and treatment instigated. Blood pressure 240/110, heart sounds rapid but regular. X-ray examination showed a severely enlarged heart, Cor-Bovis in type.

Electrocardiogram: Rate 83, sinus rhythm, left axis deviation, lowered ST1. Patient was in the hospital for one month and was discharged much improved. She was given tablets erythial tetranitrate gr. ¼ twice daily.

She was seen May 8, 1946 and her condition remained unchanged. Blood pressure was 210/110. The next examination was made May 28, blood pressure 210/130 and the patient had no complaints. She was next seen June 7 and still had no complaints, blood pressure 210/130. On June 27 she was seen and complained of chest pain and headaches. Blood pressure 230/110. Fluoroscopic examination showed cardiac enlargement as in initial examination. On July 5, electrocardiogram taken showed: Rate 83, left axis deviation and depressed ST1. Complained of occasional chest pain. Seen August 15, blood pressure 230/140, no complaints. The next examination on September 16, she complained of severe chest pains, blood pressure 230/140. Treatment changed to Tofaxin, 200 mgm. daily. The patient when re-examined on October 15 claimed that since she had been taking tofaxin she had been feeling exceptionally well. Blood pressure 240/130. Electrocardiogram: Rate 75, sinus rhythm, left axis deviation, lowered ST1. The next examination taken on November 5 did not disclose any different findings as in the previous examination of October 15. She was seen on December 3, 1946 feeling fine, no complaints, blood pressure 180/120, tofaxin dosage maintained.

Case III: *Myocardial Disease with Hypertrophy:* Mrs. M. R., white, aged 58, widowed housewife, seen March 1, 1945 complained of high blood pressure for five years. She had had slight headaches, occipital in location. Blood pressure was 180/90, heart enlarged to left, substantiated on fluoroscopic examination. There was a grade one systolic murmur at mitral and aortic areas. She was given tablets thesodate comp. thrice daily.

Patient was next seen April 15, complaining of frequent tightness in chest associated with dyspnea. She was given nitroglycerin gr. 1/100 and advised electrocardiogram which was not done. She was seen regularly and kept complaining of chest pains which were relieved by nitroglycerin gr. 1/100. The blood pressure fell to 140/80 in six months and the chest pains were less frequent. Electrocardiogram taken November 6, showed severe left axis deviation, intraventricular block and widened QRS in L3. Patient had a repeat electrocardiogram in January 1946 that showed the following: Rate 65, sinus rhythm, left axis deviation, inverted T3, pronounced Q3, widened QRS in CL4. She was given Aminophollin tablets gr. 1½, four daily, nitroglycerin gr. 1/100 PRN. When she was seen February 8, she had headaches but no compression in her chest. Blood pressure was 128/80. On March 3, she complained of a burning sensation in left arm with some discomfort in chest. Blood pressure was 140/90. She also complained of pressure pains in her chest since the last visit, which were relieved by sips of whiskey which the writer had advocated. The patient was seen regularly and still complained of chest pressure at frequent intervals. On August 29, patient was advised to take tofaxin, 200 mgm. daily. She was seen September 28, and said she felt very well until this morning when she had some slight oppression in her chest. She resorted to nitroglycerin once and was relieved. Blood pressure was 138/80. Electrocardiogram: Rate 65, sinus rhythm, left axis deviation, inverted T3, pronounced Q3, widened QRS in L4 (CF4). The next examination was on November 14 at which time her blood pressure was 150/90 and her chest pain was negligible. When seen December 23 she was feeling well and did not use any nitroglycerin at all for one month. Blood pressure was 156/90. The last examination was made January 21, 1947 at which time she claimed she had had a slight pressure pain in chest due to mental exertion on account of a tragedy in her family. However, she did not need any nitroglycerin. Her blood pressure was 142/90, heartbeats regular.

Summary

1. All cases improved in their general conditions.
2. The tolerance dose as to the above cases proved to be 200 mgm. per day.
3. The severity and frequency of the pain subsided.
4. No radical changes in the electrocardiograms were observed.

Acknowledgments

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* * *

Devergie's disease, (pityriasis ruber pilaris), had a remarkable history in that Hebra described lichen ruber, and Kaposi described lichen ruber acuminatus. At the Dermatological Congresses of 1882 and 1884, it was finally conceded that the three diseases were identical. Devergie opened the field of etiology in dermatology; he discussed the etiology as climactic, hereditary, temperamental, according to age, and skin constitution. Devergie was co-describer of Baerensprung of eczema marginatum.

THE BEDPAN

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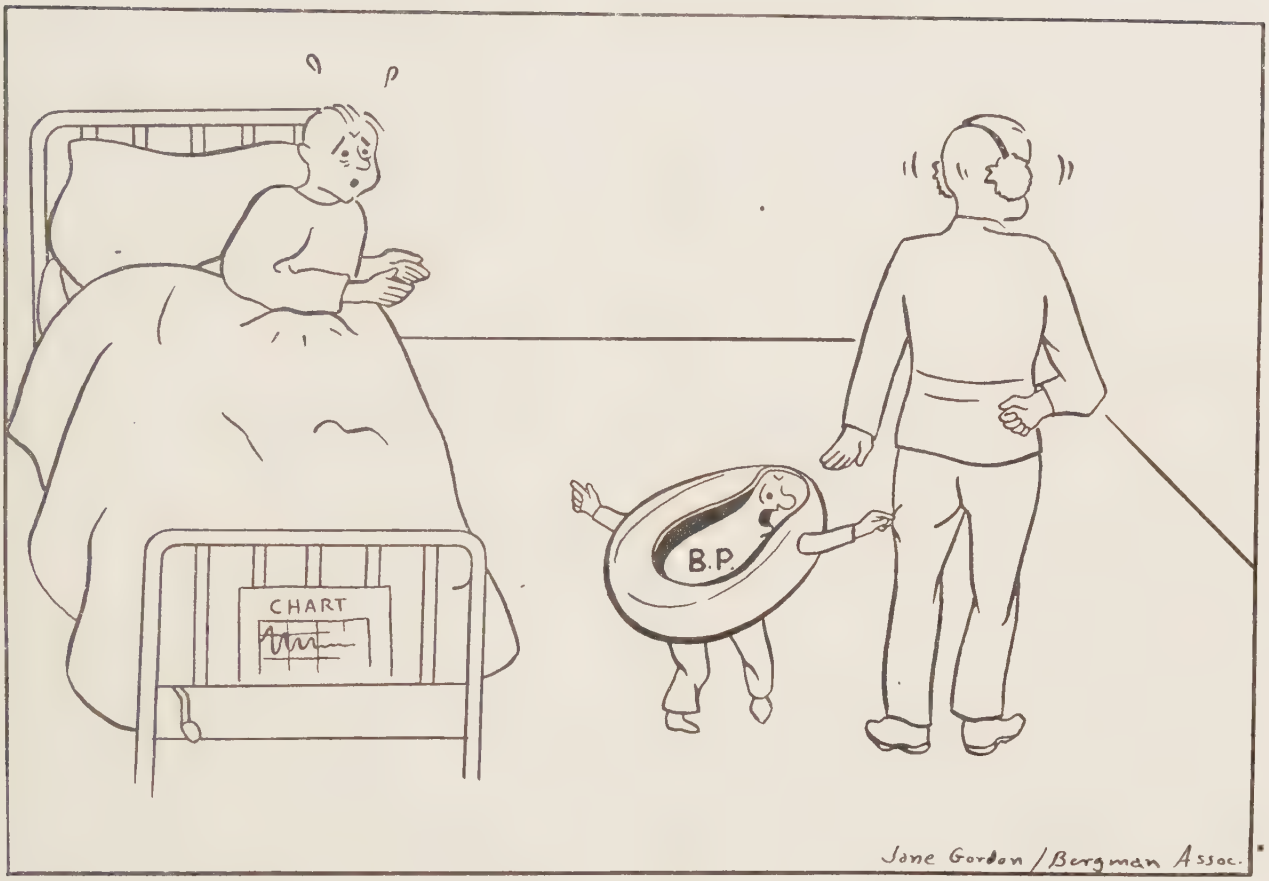

What is the most important thing to a patient when he lies sick on a hospital bed? What gives him comfort? Is it sedation? Is it good food? Yes, but not as much as the bedpan. The bedpan that is so woefully neglected in most hospitals, the bedpan that is at times relegated to the charge of an attendant devoid of character and human understanding. This is the attendant who is often snappy and impudent to the patient, even to the dying patient surrounded by nearest of kin. This is the attendant who wishes to know why the patient did not take advantage of the "bedpan hour."

How the reputation of a hospital, the best hospital, is ruined by some of the same patients when leaving for home! They forget the excellent medical and nursing care, but they cannot forget the bedpan. They condemn the hospital and everyone connected with it, all because of the neglected bedpan. They tell their friends how "terrible" the hospital was, how they suffered, how insulting the "nurses" were. The more they talk to their friends, the more they exaggerate; and the word spreads around. They will never go to this hospital again, nor will their friends.

Can this condition be remedied? Of course it can. Yet, while everybody talks about it, no one does anything.

An increase in pay to nurses in hospitals would make the "nurse shortage" less acute and would eliminate some of the competition offered by private duty nursing. A more thorough investigation of hospital attendants before employment, and an increase in wage scales would attract a better type of employee, and thus ease the burden of overworked hospital nurses.

A weekly conference with all attendants by the superintendent of nurses would help to instill a little kindness and human feeling in the hearts of some. At such meetings it should be emphasized that the patient is even more "always right" than the customer, because the patient is sick and his nerves are "shot to pieces"; he should not be held responsible for unkind and unreasonable remarks.

Moreover while some requests may seem unreasonable to the attendant, they do not seem unreasonable to the doctor, who has possibly been waiting anxiously for his patient with postoperative paralytic ileus or intestinal obstruction to make such a request, regardless of the manner in which it is made.

Ask the attendant whether he would rather go without food when he is hungry or without a bedpan when he needs it in a hurry. Ask him whether he understands the meaning of diarrhea, voluntary and involuntary movements, loss of sphincter control, how sphincter control varies in different people who are afflicted with disease. Tell him that just as much as everything that goes up has to come down, so must everything that goes into the GI and GU tracts come out. If it does not, something will give, with detrimental results. Ask him if he has ever seen the face of a patient who is in agony when he needs a bedpan in a hurry after a prolonged wait. Let him take a good look at that face, and he will not expect a pleasant response. Should the patient's sphincter give way after a prolonged wait, let the attendant in charge of the bedpan remake the bed, instead of the nurse.

If a hospital is worth working for, it is also worth working to maintain its reputation. Its reputation may be destroyed by the long-neglected bedpan to which very little attention is paid, except by the patient who needs it; and it is the patient who builds or destroys the reputation of a hospital.

75 Prospect Park, S. W.

PENICILLIN-VASOCONSTRICTOR TREATMENT OF POST-INFLUENZAL RHINITIS AND SEQUELLAE

Results with three methods of administration

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The use of chemotherapeutic agents in aerosol form has gained wide acceptance since its introduction a relatively short time ago. In the treatment of respiratory tract infections, the inhalation of a nebulized medication offers marked advantages over other forms of local treatment: the small particle size of the substance in aerosol form assures:

1. Increased chemical activity, due to the greater surface area exposed to the mucosa;
2. Better penetration into the focus of infection, due to the speed of the gaseous molecules.

Penicillin aerosol therapy has been used successfully in various respiratory infections susceptible to this antibiotic (1) and is a rational prophylactic against secondary bacterial invasion and complications in virus diseases such as influenza. (2) Since extensive use has also established the value of nebulized vasoconstrictors, employment of an aerosol combining penicillin and a vasoconstrictor would appear to be logical therapy in infectious, congestive states. Such combined therapy would not only provide symptomatic relief in addition to prophylaxis, but also, by reducing congestion, might permit a larger area of the mucosa to come in contact with penicillin.

The mild influenza epidemic in the spring of 1947, offered a number of subjects in whom this combination treatment might be suitably used. These patients exhibited a similar respiratory tract pathology due to a common cause. Their initial visit to the specialist was prompted by the development of sinusitis, which in most cases had persisted for one to three weeks after recession of the acute influenza symptoms. The typical condition consisted of marked nasal obstruction, profuse purulent discharge, headaches of varying intensity, post-nasal drip, and frequent cough, with or without production. Fever was variable but as a rule ranged from 99.5° to 100.5°.

Favorable past experience (3) with Par-Pen* in spray or drops suggested the use of this penicillin-vasoconstrictor in aerosol form. Par-Pen is a preparation providing, when freshly mixed as directed, not less than 800 units of calcium penicillin in 1 cc. of Paredrine hydrobromide 1 percent. Paredrine is a non-irritating vasoconstrictor, which provides mucosal decongestion more rapid and more prolonged than that of ephedrine, without ephedrine's stimulating effect on the central nervous system (4).

Methods

For office treatment, 52 patients were divided at random into two equal groups. The first group of 26 patients was treated wth a nasal spray having mild vasoconstrictor effects, such as 1 percent cocaine antipyrine solution. After a few minutes, the passage was irrigated with a warm normal saline solution, followed by a bland spray of camphor

* Obtainable from Smith, Kline and French Laboratories, Philadelphia, Pa.

menthol oil. Relief was fairly prompt, and lasted for 1 to 1½ hours.

For the second group, this routine was supplemented by an aerosol treatment with Par-Pen. In previous experience (3), instillation every three hours of approximately 1 cc. of Par-Pen (providing 800 units of penicillin, when fresh) had given good results in rhinitis and sinusitis. Since much larger amounts of penicillin have been tolerated in aerosol form, however, (1) it was decided to add 800 units of the antibiotic, providing a total of 1600 units per office treatment.

The solution was placed in a nebulizer of standard make, fitted with two glass tubes to facilitate nasal administration. The nebulizer was attached to the air pressure and the gauge set at 6-8 pounds pressure. The patient was instructed to inhale slowly, hold the breath for a few moments, and then exhale lightly. Inhalation rate was subject to the patient's control simply by pressing the tube which was held in his hand. Twenty to thirty minutes were usually required to inhale all the vapor.

Effects of this treatment were prompt and prolonged in all of 26 patients to whom it was given. The nasal passages opened freely and usually remained patent for two to three hours, whereas symptomatic relief from the 1 percent cocaine antipyrine solution ordinarily used, lasted little more than an hour. Secondary drainage was freer with this method, and secondary obstructive symptoms, particularly headache, were rapidly relieved. Patients responded with an increase in general well being. The only complaint was an occasional sensation of pressure in the eustachian tubes, which was usually relieved by shortening the period of each inhalation, lengthening the intervals between applications, or reducing the air pressure temporarily. The treatment was repeated at varying intervals, from once a day to once every three days, with the exception of one case in whom symptoms of allergic reaction to penicillin occurred.

For home treatments between office visits, unfortified Par-Pen was prescribed for all 52 patients. This seemed like a good opportunity to test the practicality of patient use of the nebulizer for penicillin therapy, in addition to making a comparison of results with various methods of nasal administration. For this reason, patients were divided into three groups for home treatment: 20 were instructed to use the Par-Pen in drops; 22, in an atomizer; 10, in the nebulizer.

Methods for Home Treatment

Patients were instructed to take one of the following treatments every three hours:

Nasal Drop Method: To instill the drops, the patient lies in bed with the head somewhat lower than the shoulders; 4 to 5 drops of Par-Pen solution are placed in each nostril. The position is maintained for 2 to 3 minutes, then the head is rotated laterally first to the left, then to the right, so as to produce maximum penetration and shrinkage of the mucous membrane.

Spray Method: The atomizer recommended permits use of a measured amount of solution, is easy to use and to transport. A medicine dropper (1 cc.) of Par-Pen solution is placed in the apparatus. A treatment consists of two or more sprays to each nostril (one directed toward the dorsum of the nose, the second along the floor of the nose) until all the solution is used.

Nebulizer Method: The nebulizer with nasal attachment was used. After placing 1 cc. of Par-Pen solution in the glass, the patient inserts the two nasal tubes, and as he compresses the rubber bulb at the other end of the nebulizer, inhales the fine mist produced until all the solution is gone.

Results

Drops: Relief was reported as moderately rapid, and usually lasted from 1 to 1½ hours. Patients liked the convenience with which drop bottles could be carried, and the ease of drop administration. A common complaint, however, (which may have been due in part to improper use) was that the drops rolled down the throat, so that a penicillin taste was obtained; in two patients, this was said to cause nausea.

Spray: Symptoms were relieved for 1½ to 3 hours. The longer duration of effect as compared to results with the drops can perhaps be accounted for on the basis of superior penetration and distribution. There were no objections to this form of therapy; the entire group was well pleased with the spray method. Two patients, however, developed symptoms of penicillin allergy—excoriation and redness about the nostrils and upper lip, marked nasal obstruction and profuse watery discharge. These reactions subsided promptly when the treatment was discontinued.

Nebulizer: All ten of these patients objected to the duration of the individual treatments with the nebulizer and requested a change to either the spray or drops. Only one used this method for a sufficient time to note improvement from the treatment. The principal side-reaction reported was dizziness, which had not occurred in office treatments with the nebulizer; on the other hand, only one patient complained of pressure in the eustachian tubes from the home treatment; one developed sensitivity to penicillin.

Case Reports

Case 1. I. A., aged 46, male, who was seen on March 24, 1947, complained of marked nasal obstruction, cough, nasal discharge, sore throat and headaches of four days duration. He had been confined to bed for two days but since then had been up and around, in spite of the fact that the severity of his headaches made it impossible to attend to work. Physical examination revealed a slight excoriation in the nares, marked congestion of both nostrils with purulent discharge from both meatuses. The pharynx was acutely congested and covered by mucopurulent material. The tonsils had been enucleated. Temperature 98.3, pulse 78, respiration 20. A routine office treatment was given: instillation of 1 percent cocaine antipyrine solution was followed by nasal irrigation with warm normal saline solution, which washed out a considerable

quantity of purulent discharge. The nebulizer treatment with fortified Par-Pen solution (1600 units of penicillin) was administered for 25 minutes. Finally, a bland oil was sprayed into the nose.

At the conclusion of the treatment there was marked symptomatic relief; the patient was advised to instill five drops of Par-Pen in each nostril with the head in a dependent position, every three hours. On April 1, the patient returned and reported considerable improvement in his condition. A second "aerosol" office treatment was given, and the drops continued. At his next visit on the fifteenth, the patient claimed complete relief of all symptoms; the drops were used only at irregular intervals, usually before retiring. He was discharged as cured.

Case 2. D. B., aged 34, female, was first seen on March 14, 1947 presenting symptoms of a week's duration: marked nasal obstruction with post nasal drip and severe blockage of the eustachian tubes. Physical examination revealed congestion of the mucous membrane of both nostrils, moderate discharge of mucopurulent material in both nostrils, hypertrophy of both inferior turbinates. There was a slight redness of the pharynx with a plug of mucopurulent material coming down from the nasopharynx. Temperature, pulse rate and respiration were normal. This was definitely a case of acute exacerbation of a chronic ethmoiditis.

Following the routine treatment, the patient was given "aerosol" therapy in the office; this lasted about 20 minutes. For home use the spray method, every three hours, was advised. Patient returned one week later stating that her symptoms were considerably improved. The post nasal drip was markedly reduced. This patient was extremely partial to the spray, reporting that penetration was much better than with the drops which she had used on previous occasions. Relief usually lasted from 2½ to 3 hours following each treatment. On the third visit, March 28, symptoms were negligible; she reported a very slight post nasal drip, apparently only upon arising. The patient was discharged as cured.

Case 3. E. H., aged 21, female, who was first seen on April 8, 1947, complained of marked nasal obstruction, headaches, nasal discharge, cough, and marked dyspnea with considerable wheezing. These symptoms had persisted for ten days. Physical examination revealed marked congestion of the mucous membrane of the nose, edema of both inferior and middle turbinates, purulent discharge in both nostrils and pus in the pharynx. Temperature 99.2, pulse 84, respiration 28. The patient had been on active asthmatic treatment for many years and the acute upper respiratory infection was superimposed on this. The routine and "aerosol" treatments were given in the office and the Par-Pen spray was recommended for home use. The patient returned in three days, complaining that the congestion was extremely severe and the symptoms had been aggravated ever since the first (office) treatment. On examination, nasal excoriation, edema and profuse nasal discharge gave evidence of an allergy to penicillin. In consequence, these treatments were discontinued.

Case 4. V. S., aged 33, female, was first seen on March 28, 1947, with a history of marked nasal obstruction, nasal discharge, right-sided headache and slight cough, following an acute attack of influenza ten days before. Physical examination revealed marked nasal obstruction, particularly on the right, moderate edema of both inferior turbinates, a moderate amount of purulent secretion in both nostrils. The pharynx was slightly reddened and covered by a thin film of mucopurulent material. The tonsils had been enucleated. Temperature, pulse rate and respiration were normal.

This patient was given only the routine office treatment: 1 percent cocaine antipyrine solution and irrigation with warm normal saline solution. For home treatment, the Par-Pen nebulizer treatment was prescribed, with explicit instructions for its use. On returning four days later, the patient stated that the nebulizer treatments gave no relief; it required 20 to 30 minutes to use 1 cc. of the solution, and her hand became tired from the compression of the bulb; furthermore, it was too bulky to take to work. The drop method—five drops of Par-Pen in each nostril with the head in a dependent position—was substituted, with instructions to repeat the treatment every three hours. A week later, the patient reported marked relief from her symptoms, with only slight congestion which usually occurred at night.

Discussion

From the results obtained in this study, it appears that the value of aerosol therapy of the conditions described depends entirely on its proper use. In the office, where pressure can be supplied mechanically and the patient kept under observation at all times, the nebulizer is a practical means of administering a penicillin-vasoconstrictor substance. Patients so treated with nebulized Par-Pen reported prompt and prolonged relief, with the single exception of the woman whose allergy to penicillin was evidenced soon after office treatment. On the other hand, the nebulizer proved quite impractical for home use with the penicillin-vasoconstrictor combination. This is undoubtedly due to the fact that such a large amount of solution (as compared, for instance, with epinephrine, which is widely used in nebulized form) must be inhaled. Patients find the compression of the bulb for 20 minutes or more too tiring, and apparently most of them are unable to work up sufficient pressure to make proper inhalation possible.

The therapeutic method of preference in this study proved to be an office treatment with nebulized Par-Pen, followed by home use of Par-Pen in either drop or spray form, with superior results from the spray. In this series of cases, this routine brought about disappearance of most symptoms within a week or ten days—half, or less than half, of their usual duration. Furthermore, although it is impossible to estimate the probable instance of sequelae in any group such as the one reported here, clinical observation of the patients so treated gave a definite impression that the number of complications developed was unusually small.

Summary

Properly used, nebulized Par-Pen gives prompt and prolonged relief of respiratory tract symptoms secondary to an acute attack of grippe. "Proper" use of the nebulizer seems to require machine air pressure of from 6 to 8 pounds, and careful supervision of the patient; i. e., the nebulizer is best used for office treatment.

For home treatment, the spray method takes first place, and drops second. Home use of the nebulizer proved impractical in this series of cases.

The combination of a vasoconstrictor with penicillin in the treatment of the condition described is both practical and effective; the vasoconstrictor in Par-Pen adds considerably to the patient's immediate comfort, and may aid absorption of the penicillin by clearing the areas to be treated.

Patients treated with Par-Pen by a combination of office and home methods showed a significant shortening of the duration of symptoms, and an unusually small number of complications.

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PSYCHIATRY TODAY

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The September 1946 issue of the *American Journal of Psychiatry,* the official organ of the American Psychiatric Association, contains the reports of committees which were presented to the Association and approved by it during the convention sessions in Chicago, May 27-30, 1946. These reports contain observations and recommendations of great importance to the medical profession and the public, and should have the support of all organized groups working for the welfare of society. The author shall quote rather freely from several of them, with the hope of stimulating greater interest in the field of psychiatry.

The committee on psychiatric standards and policies recommended that the American Psychiatric Association should be organized on such a basis that the service will radiate from its central headquarters to the whole of the United States, as well as Canada and other countries of our hemisphere. In the past one hundred years the Association has assumed the great responsibility of creating policies and standards for the care and treatment of the mentally ill, as well as fostering research for the prevention and treatment of mental diseases.

The committee on public education stated that with psychiatry continuing to feature prominently in the various realms of public activity, a general interest in the field has been sustained, and that psychiatric information released for public consumption has found an attentive audience. Vehicles for public education efforts have been provided in several spheres, namely: contemplated psychiatric legislation in Congress, psychiatric aspects of rehabilitation procedures, activity within our own professional ranks to establish psychiatry in the reconversion setting, and other psychiatric affairs of general interest.

The committee had followed a more or less conservative approach until recent years, when it became aware that the attention of the entire nation was focused upon the need for adequate preventive and curative mental health services for all the people, and that there was a definite demand for such hospital and out-patient services within the means of all classes of society. (Psychiatric service rendered by hospitals and clinics has never been on the same basis as the services of other branches of medicine in general hospitals.) It was also recognized that complete reorganization of hospital and out-patient services will be necessary and that a new integration between state hospitals, general hospitals and medical schools, must be developed if we are to capitalize on the new interest in psychiatry that has been born as a result of the war.

The Committee recommended further that all mental hospitals be inspected and that the deficiencies requiring correction be brought to the attention of the state authorities. It discussed the National Health Bill, which has since become law, and has for its objectives; better psychiatric care, public education and close relationship with all groups who share its interest in mental health.

It referred to the importance of the film industry in influencing the public understanding of psychiatry and psychiatric treatments, and felt that certain pictures overdramatized therapy. The objectives were discussed with executives of the film industry, who requested suggestions as to "how they might go about getting the right kind of counsel in such matters." The Committee agreed to furnish more substantial psychiatric advice and guidance whenever requested. They expressed the opinion that psychiatrists should become more militant and objective, less individualistic, and learn to work together to establish psychiatry on the same basis as other specialties.

Recommendations made by the consultants in the neuropsychiatry consultants' division of the Surgeon General's Office were considered of great importance because of the lessons learned thus far by the experience of war. They stated that, not only have we needed (and still need) a far larger number of thoroughly trained psychiatrists, but all medical students need better instruction and training in psychiatry than they have been receiving in our medical schools. Such training is needed because of all the neuropsychiatric cases diagnosed and treated in the Army, only seven percent were psychotic or insane. Ninety three percent were not extreme cases but depended for recognition and adequate care upon what the average doctor, serving as a medical officer, had of psychiatric knowledge and skill. Too often that knowledge and skill were not what might have been expected of well trained doctors. The mere number of cases calling for psychiatric understanding redoubles the argument for the importance of psychiatry in medical education.

The Army recorded over 380,000 medical discharges for neuropsychiatric disorders (mental deficiency, homosexuality, alcoholism and antisocial reactions) between January 1942 and December 1945. Also, from Induction Board Examinations, 37 percent of the total rejections were for neuropsychiatric conditions. On any typical day of the war, ten to fifteen percent of the patients in the Army hospitals were neuropsychiatrics. At the peak, the Army had about 45,000 physicians but only 2,400 were classified as neuropsychiatrists, and half of this number were trained by the Army itself to meet the emergency situation. There were only about 1,000 psychiatrists who were commissioned directly from civilian life, of whom less than 500 could be considered to have been mature specialists. In contrast there were 10,000 surgical specialists and 6,000 specialists in internal medicine.

Derived from these percentages is this simple conclusion: The milder forms of mental defect, emotional instability, and neurotic weakness are far more common and a much larger component of illness and incapacity, in either military or civilian populations, than is reflected by the budgets, the teaching personnel, or the time devoted to psychiatry in our American medical schools.

The committee on research through its chairman, Dr. Abraham Myerson, urged that the Association take a more prominent part in the investigation of eugenics, in order to determine the extent of hereditary factors in maladjusted personalities and mental disease. It is my considered opinion that further research into the psychosexual and biological influences of the endocrines is of great importance for a better understanding of predisposing causes of mental disease, and inherited personality defects causing maladjustments.

Investigation and research have shown that production of the female hormones, or estrogens, is not limited to the female, as the male also produces these hormones, but in lesser amount; just as the female produces a lesser amount of androgens than the male. This fact explains the biologically effeminate man and masculine woman, as shown by their secondary sex characteristics and social attitudes, which are the result of excess hormones of the opposite sex, and endocrine imbalance. The mating of the masculine, dominating woman with the effeminate man, although mutually attracted, is inadvisable from the standpoint of eugenics, as their offspring tend to inherit their endocrine pattern with its end results.

Psychoanalytic investigation and research also show an inherent psychosexual predisposition in the neurotic, which is an important factor in the development of a neurosis or psychosis. This unusual vulnerability is characteristic of the neurotic and is due to personality defect, no doubt transmitted, as the basic law of heredity is that all living things come from cells, which tend, in animals, to transmit their qualities to their offspring by means of chromosomes, orgenes, while seeds contain the transmitting medium of plant life.

Certain personality functions, or trends, are strongly influenced by native endowment. We often refer to "common sense" and "native ability" as family traits, but if the individual is psychopathic or psychotic, this reference is avoided, although supported by the same evidence.

The syntonic and schizoid personalities, or the extrovert and introvert of Carl Jung, the Swiss psychiatrist, are normal types that cannot be explained on the basis of environmental influences of infancy and childhood. Both may be found in the same individual, with one type usually predominating. Each of these types reacts to its environment in a characteristic manner, which may be considered abnormal if social maladjustment results. There are disorders of personality that are characterized by developmental defects, or pathological trends in the personality structure, and manifested by a life-long pattern of action or behavior, without mental or emotional symptoms. The constitutional psychopathic personalities are inherent personality defects, as mental deficiency is an intellectual defect. The offspring of these defectives are social liabilities and a serious menace

to our national security in both peace and war. The psychopath is a congenital agitator, who blames society for his own unhappiness. He has no difficulty in organizing and leading groups of his own kind, as there is a mutual attraction among this type. As a rule mental defectives marry mental defectives and psychopaths marry psychopaths, their offspring becoming an ever increasing burden to society. We take great pride in our thoroughbred and pedigreed animals, but let the human animal continue to propagate regardless of consequences.

A campaign of education should be instituted at once in order that society may be made fully aware of the enormous price it is paying by permitting the propagation of the congenitally unfit, because of our reluctance to curtail personal liberty in any way. When the public is fully informed, I believe the majority will not hesitate to advocate eugenics, based on self interest and common sense.

Dr. Ewen Cameron, in his address on the reorganization of the Association, expressed the sentiments of all members when he stated that many of us, when we join the Association, have expectations as to how far the organization might lend strength and weight to our own aims and anticipations. We also have had the hope that in these days of enormous personal and social change, the Association would constitute one of those powerful forces which are at work in building our future social order; for there is no group anywhere, the members of which have such detailed and profound knowledge of all aspects of human nature.

That the Association has not been able to assume the leadership expected of it is due to constitutional inadequacies it shares with every other organization which is of continental scope, because of diversity of interest and aim which prevents the single minded striking towards a goal, which is the essence of leadership. Wherever you have such diversity within an organization you must proceed by compromise, and compromise is not pioneering leadership. In closing he recommended—that the financing of this and other expansions of the public work of the Association should not be borne by the membership. We contribute our experience and our professional abilities. It is reasonable that the public, through philanthropic foundations and through the direct raising of funds, which the Association is now undertaking, should finance this work which is directly and clearly in the public interest.

To this end the Psychiatric Foundation has been launched as a long overdue movement to gain popular support for psychiatry comparable to that given to infantile paralysis, tuberculosis and cancer. Government agencies, as well as public and private organizations are spending not more than twenty-five cents a year for research for each estimated case of mental illness, as compared with one hundred dollars for each case of poliomyelitis, a disease which is far less widespread and of far less social significance, when compared with the social neuroses that exist all about us and vitally affect the mental health of every individual. We realize that if psychiatry is to grow in effectiveness, it must be through the sympathy, the understanding and the demand of the layman. Only as the individual layman is educated to the problem, and the most expedient ways of handling it, can he find an intelligent solution.

If psychiatry is to expand sufficiently to provide the greatly increased facilities forecast by our war experience, it needs three major developments: More trained, experienced personnel who are able to deliver the fund of knowledge and experience now available; a wider public understanding and acceptance, and a greatly increased general fund of knowledge through research. In order to provide the leadership necessary to attain its objectives, the Psychiatric Foundation was organized with the approval of the American Psychiatric Association, the American Neurological Association, and the National Organization of Public Health Nursing. Its officers and board of directors consist of outstanding leaders in the American Psychiatric Association and the American Psychoanalytic Association.

In addition to its program of public education to combat the stigma connected with mental illness, the Foundation will seek the assistance of the leaders of every American community in carrying out the following objectives:

To reduce the incidence of mental illness in adult life it is essential that instruction designed to provide preparation for marriage and parenthood shall become part and parcel of our educational system. The very large number who regularly succumb to the stresses of living attest the fact that parents everywhere need the assistance of the schools in the training of their children in the wholesome development of their personalities. Not until the educational process is geared to the principle that mental health is man's most precious heritage and that the ability to establish satisfying interpersonal relationships is of greater importance than the inculcation of knowledge, will the vast number of those who crowd our mental hospitals begin to diminish.

The services of mental hygiene clinics should be available to every community so that those disturbances of childhood, which are the early manifestations of adult maladjustment and mental disorder, may be corrected. The establishment of such clinics is of importance equal to the organization of other departments of public health, and their need is becoming generally recognized. The Psychiatric Foundation also aims to promote the establishment of special hospital facilities for the treatment of children whose emotional disorders are so severe that they cannot be treated in their homes. There is almost a complete lack of such facilities, which are urgently needed in a great many areas.

The Foundation intends to encourage and assist medical schools in establishing adequate departments of psychiatry. In most of our seventy Class A medical schools these departments compare most unfavorably with the departments in medicine and surgery. A large number of medical students would be attracted to the field of psychiatry if the departments of psychiatry were well organized and adequately financed. The Foundation will work energetically to bring about these much needed changes.

At the present time the funds available for psychiatric research represent no more than a pittance compared to the large amounts for research in other branches of medicine. The needs for intensive investigations, methods of prevention, shorter methods of treatment, and many other problems in connection with mental disturbances are apparent to all psychiatrists. The Foundation will attempt to acquire and distribute funds for research into these problems.

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HUGHLINGS JACKSON AND THE THINKING MACHINE

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The brain is a most mysterious organ. For hundreds of years, until Hughlings Jackson became fascinated by the brain, its structure, its function and its place in the scheme of things, it remained an even more mysterious entity. Dr. Jackson began to collect brains, take them apart, study their various parts and investigate their particular functions. Then he began to make deductions regarding the mechanism of mental processes. These deductions are as important today as the day they were first promulgated.

Mental phenomena occur during the activity of certain nervous arcs. To us, according to Dr. Jackson, the highest motor and sensory centers constitute the "organ of mind." Mental phenomena occur during activity of these centers. Hughlings Jackson was of the opinion that the organ of mind was a mechanism for the coordination of impressions and movements.

What happens in the mind when one sees an object? Most of us would think that the act of seeing was purely sensory; that is, we simply see and that is all there is to it. But Dr. Jackson believed that seeing also gave rise to certain mental actions.

"I suppose," he said, "I am seeing a brick. What happens is that there is a peripheral impression upon the retina of the eye; impulses then pass through the lowest, the middle, and up to the highest sensory centers. So far we have only stated one-half of the reflex action, have only reached the physical condition in the highest sensory centers, correlative with the color of the brick. It and all other objects have shape, and this as much requires to be accounted for as the color. The shape of an object is the relation of its several positions one to another; our knowledge of this relation is by movements, in this case, ocular movements. By currents passing from the highest sensory centers, so to speak, 'across' to the highest motor centers and from these downward, through middle and lowest centers to the muscular periphery, there is development of movements of the eyeballs. Here we have reflex action."

But seeing is only one of the sensations which give rise to mentation. When one smells a flower, there is a vivid image of the flower as well as its smell, although this image is much fainter. Tasting and touching are also necessary to give realistic dimensions to thinking.

When one thinks of a concert, a football game or a lecture, there is an image of all the characteristics that went into the picture of these particular events; sounds, odors, colors, shapes and sizes. Thus certain types of thinking are rather sensory in their makeup. That is, we think in "pictures".

The first processes of thinking are "knowing" and "remembering". We *know* a brick when we see one by certain mental impressions and characteristic physical features. *Remembering* a brick involves a repetition of these sensations but in a much fainter degree. These two, "knowing" and "remembering" are very similar. But the third characteristic, thinking or "reasoning" is different from either. Knowing and remembering are acts involving the consciousness of images. Reasoning involves activity, the manipulation of images.

On the nature of reasoning Dr. Jackson expressed himself in the following words: "When I arrange books on a table they are visual and tactual images, and these are actions. Physically there are imprints on the retinae and on the finger tips, and there are movements of the arm. Now suppose I think of arranging the books. I have faint visual and tactual ideas, and there are faint actions, and physically there are slight central, cerebral discharges, the peripheral pairs not being engaged. It sounds grotesque to say that manipulations and certain gross

operations, or rather the correlative actions, are reasoning; but I think there is reasoning in its lowest form, or that there is at least that out of which what is called reasoning has been gradually evolved.

"To return to the former illustration. The action during the process of actually arranging the books is reasoning in its lowest form; the action when thinking of arranging them is a next-higher grade; a purely symbolic arrangement of them in thought by actions concomitant with activity of new nervous arrangements representing modified parts of the operations, is a *sort* of reasoning. Certainly when words come to be symbols of the actions (symbols of symbols) in the case supposed, there is what is commonly *called* reasoning."

One occasionally says that he thinks in "words". Dr. Jackson emphasized that words are psychic correlates of certain movements. Thus reasoning comprises ideas of movements in a twofold manner: 1. Ideas of manipulative movements (e. g., the arm movement of a chimpanzee in reaching for a stick to get a banana, or the hand movements of a chess player). 2. Ideas of articulatory movements correlative with words symbolic of these manipulative movements.

There are many instances of reasoning which involve ideas of both manipulative and articulatory movements, as when one is thinking of how to repair a bit of mechanism, like an automobile, typewriter, or clock. There are also instances which involve only articulatory movements, as when a philosopher indulges in a bit of abstract thinking.

Thinking, according to Dr. Jackson, is a composite function occurring during activity of the highest sensory motor areas, this activity being generally combined with that of the lower arcs as well. When one thinks of something, whether it be an object seen or a movement once executed, there is activity of both the highest sensory and highest motor centers.

Reasoning occurs, according to Dr. Jackson, during activity of motor centers, there being activity always of the highest centers and often of the lowest. Actually one never reasons without reasoning about something, and that something is usually a set of objects. "Thinking of these objects" occurs during activity of the sensory and motor centers. In actual practice therefore, an act of reasoning is concomitant with activity of sensory as well as motor centers.

Hughlings Jackson was at heart a philosopher rather than a physician. In fact, when he came to London in 1859 at the age of twenty-four, it was with the avowed purpose of giving up his career in medicine and devoting his entire time to philosophy. In London he met his good friend, Sir Jonathan Hutchinson, seven years his senior, who persuaded him to continue his medical career. His thoughts, however, were always heavily tinctured with philosophy.

In 1859 Dr. Jackson became associated with Sir Jonathan in writing medical papers which appeared in great profusion in almost all of the medical journals. His specialty dealt with the nerves and the brain and the various ailments that affected them. But the greater majority of these articles dealt with the brain and particularly with epilepsy.

Dr. Jackson believed that there were three levels of function in the central nervous system. The lowest level includes all the motor cells and fibers below the level of the brain and is called the first or lowest level of function. The second or middle level includes the so-called motor areas of the brain; the third level includes all portions of the brain aside from the motor areas.

Perhaps his greatest contribution to neurology was his subdivision of the symptoms and physical findings after injuries to the central nervous system into a number of physiological subdivisions. After removal of portions of the nervous system there are a number of findings that the defect was due to the loss of a certain number of neurones. Other abnormalities are found which may be interpreted as release phenomena inasmuch as they are due to the overactivity of lower centers freed from their normal inhibitory control. A third group of abnormalities are irritative—due to the sudden discharge of local areas of gray matter that have stored up excess energy in unstable equilibrium. Under this heading come the convulsions or fits.

He introduced a new method of studying convulsions. He endeavored to interpret them in terms of physiology. He gave the following definition of one of the most common of nervous disorders: "Epilepsy is the name for occasional, sudden, excessive, rapid and local discharges of the gray matter." "Loss of consciousness, which is the fundamental thing in most definitions, means an involvement of the most specialized of nervous processes." In another place he says: "A convulsion is a clotted mass of innumerable movements produced by excessive, sudden and abrupt cerebral discharges."

Before Dr. Jackson's time it was thought that epileptic fits were due to a disease in the region of the medulla. Dr. Jackson believed that the lesion was to be found in the cortex of the brain, and he began to gather evidence to support this view.

Convulsions are due, according to Dr. Jackson, to the storing up in a portion of the cortex of the brain an excess of energy in unstable equilibrium. It takes time to store up this energy so there is usually a space of time between the fits or seizures. The crude outburst of energy is followed by a period of fatigue in the portion of the gray matter giving rise to the convulsions and for this reason there is often a temporary paralysis of the parts convulsed. Moreover, a portion of the gray matter of the cortex may have completely lost its function while the surrounding areas are in unstable equilibrium and under these conditions there may be convulsions on the paralyzed side of the body.

Dr. Jackson described a type of epileptic fit which bears his name. This is known as a Jacksonian convulsion. This type of convulsion begins most commonly in order of sequence, in the hand, face and foot. When it begins in the hand it involves

first the thumb and index finger; in the face the facial muscles and the tongue, and in the legs the great toe. The march of the attack is interesting. If it begins in the hand it usually spreads up in the arm to the face and then down the leg. In cases where there is a loss of consciousness it usually occurs when the attack reaches the face. The involvement may spread to the other side of the body. It then involves the muscles of the trunk on both sides and finally the arm and leg of the second side.

Dr. Jackson gave a possible suggestion for the fact that the attacks begin in the fingers or in the toes, the most voluntary muscles of the body. He suggested that these muscles were represented in the brain by large numbers of relatively small cells that present a large total surface area that was easily influenced by any change in the composition of the blood.

The brain was the seat of the disorders of the epileptic seizures, and Jackson accumulated some evidence that suggests that there are centers for the control of the autonomic nervous system in the brain. Thus in epileptic fits premonitory shivering is sometimes seen. There is pallor of the face, increased salivation and sometimes vomiting. In certain cases the heart is definitely slowed at the beginning of the convulsion.

Jackson was always on the lookout for unusual brain changes that produced unusual ailments. Thus in the concluding years of his studies on epilepsy he described a disease that is due to abnormal discharges from the region of the tempero-sphenoid lobe of the brain. The patient was a cook. At the beginning there developed a tremor of the hands and arms. She then saw in every attack a little black woman who was always actively engaged in cooking. There was at the same time a horrible smell of "burning dirty stuff." She would stand with eyes fixed for a few moments and then say, "What a terrible smell." She did not lose consciousness and remembered the attack.

Hughlings Jackson was born in Yorkshire in 1835 and received only the equivalent of a grammar school education. He then entered medical school where he attained high grades in his studies despite his lack of formal education. In later years he felt that his education was quite inadequate and wished that he might have attended one of the English universities. He believed that his lack of training was largely responsible for his difficulty in expressing himself. But actually this was not true at all. He used the most vivid expressions in describing his clinical observations. Thus a convulsion he called "a clotted mass of spasm." He said upon one occasion that the optic nerve looked "as if it had been trodden upon."

Jackson was so busy analyzing and describing life that he had no time to live it. After seeing Niagara Falls he jotted down in his notebook "Much as I had expected." He suffered no crisis, never had a love affair, lived life on an even keel. He was so absorbed with unravelling the mysteries of the brain and nerves that he had little time for anything else.

In 1911 Hughlings Jackson died, one of the greatest neurologists of all time. His name is now immortalized in neurological literature.

183 Avenue O

Aluminum Used in Leg Braces

An article in a recent issue of *Handicap* magazine tells the story of the successful use of special aluminum alloys, developed during World War II for aircraft, in building leg braces for the crippled. This work has been done at the Army's Walter Reed General Hospital where in fourteen months 1,839 experimental leg braces made entirely of aluminum have been manufactured and studied. Of this number only one-fifth of 1 percent required repairs in the same period.

This is the first attempt at quantity production and is, undoubtedly, the best news in years for disabled persons requiring the use of cumbersome leg braces. Up to now braces have been constructed of steel. The new ones are not only changed in design but have resulted in a saving of weight up to 60 percent.

Eighteen designs have been made and tested at a cost averaging between ten and twenty-five dollars. Special locks, similar in design to the new type Lincoln automobile door lock, have been incorporated in the braces to allow simplified "knee action".

Persons using the braces can make repairs unaided, through the use of replacement parts requiring only a screwdriver to adjust. No parts are riveted, as in the old steel brace, and costs for the average yearly repairs should not exceed two dollars and a half. The Hauser Brace has been designed for production line manufacture and each part can be drop forged for standard, uniform construction.

The braces have been manufactured for Army patients and their dependents and for all Veterans Administration facilities. The designs, which have been developed by Hauser, will be submitted to any foundation or organization engaged in assisting the physically impaired who require the use of leg or body braces.

Editorials

Some Recent Opinions Concerning The Antibiotics

One of the high lights during the recent A. M. A. meeting in Atlantic City was the panel discussion on antibiotic therapy. The idea of a sort of cross-quiz seems to have been borrowed from the radio. The participants sat at a long table, each with his own microphone hooked up to the public address system. Questions were asked by the presiding officer, as well as by the participants, and, through written requests, from the floor. The results were excellent from a hearer's angle, since, because of the extremely good acoustics, it was possible to engage mentally in the debate and to make notes.

Dr. Clyde L. Cummer of Cleveland, Ohio, presided. Dr. Howard Florey of Oxford, England, a guest at the meeting, who has had so much to do with bringing the antibiotics, (especially penicillin), before our profession, was asked to open the discussion. He spoke briefly to the effect that antibiotics are derived from fungi, or actinomyces or bacilli. Naturally, he felt that of the many antibiotics which have been tried, penicillin is the most reliable and likely to succeed. Nevertheless he gave some praise to streptomycin, recognizing, of course, its limitations and the "danger", so often stressed by others, in its use. The inference was that impurities may still abound in preparing the agent and that further refining may do away with some of the objections. The matter of bacteria promptly developing resistance to this and other antibiotics was mentioned, and was taken up by other speakers later on in the session.

Dr. Wesley W. Spink of Minneapolis, moderator of the group, spoke in favor of "surgery first" to be followed by these agents if the indications for their use were present. It was his feeling that they are only adjuvants and have limited uses, but since streptomycin works on both the gram-negative and gram-positive organisms it may offer a greater promise for general mixed infections than some others.

Dr. Chester S. Keefer of Boston went on record as favoring streptomycin, especially in tularemia and in certain tuberculous infections (miliary tuberculosis). Infections of the urinary tract are improved in some 70 percent of the cases observed. The dosage should be rather intensive for from 5 to 7 days. Then, if improvement seems slow or negative, one should consider the possible presence of a foreign body (stone) somewhere along the urinary tract. He advises 1 to 2 grams daily for the 5 to 7 days, but not to continue beyond that range. In infections of the lungs with Friedlander's bacillus, 80 percent of the patients did well under his observation, but in typhoid and in undulant fever, the results were disappointing. Good reports have come from laryngologists who have treated tuberculous infections of the larynx, and in some types of miliary tuberculosis as already mentioned. Any dosage above 6 grams is likely to prove toxic. There is renal irritation—blood and mucus in the urine—and urticaria. If the auditory nerves become involved, the vestibular disturbance is manifested by dizziness, nausea and vomiting; while the auditory portion of the nerve discloses tinnitus and poor or no hearing, which, unfortunately, is likely to be permanent. The vestibular symptoms usually clear in 7 to 10 days. Tinnitus may be persistent and devastating from the patient's viewpoint. However, in severe infections where bacteria resist the action of penicillin and the sulfas, we may well resort to streptomycin if it is a question of life or death.

Dr. Charles Phillip Miller of Chicago discoursed on the development of bacterial resistance to antibiotics in general. He emphasized the well-known fact that susceptibility and resistance are purely relative terms and must be rated accordingly. At times bacteria seem to show almost human intelligence in fighting the enemy who comes against them, and so it becomes a nice question of our "tools against time"—that is we must strike hard with our agents in sufficient dosage, frequently repeated, to get an immediate result. Most bacteria acquire resistance slowly, but some virulent types quickly overcome the ammunition sent against them. In the beginning, with little experience, our dosage was undoubtedly too small. We had to feel our way lest we do more harm than good to the patient. Now we have become bolder and are prone to use more of our agent than is necessary. As for penicillin, we may have a secondary infection coming in during our dosage which may be quite mystifying until its presence is known. By this time bacterial resistance may have developed to a degree where we have to make a change to some other agent. It was stated that in the laboratory, it has been possible to grow a streptococcus (which one is not evident) in the presence of 5,000 units of penicillin—this in vitro. A curious observation is that some meningococci "grow best" in the presence of

streptomycin! This is again from the laboratory, and we have as yet no clinical confirmation of such a disturbing statement. But we do know that resistance to streptomycin may develop very rapidly, and so there may well be a race against time in which one is obliged to administer up to the six grams which is said to be the limit of safety.

Dr. John S. Lockwood, professor of surgery at the College of Physicians and Surgeons, N. Y., reported on his experiences with chemotherapy in surgery. He recognized that there is no substitute for surgery where immediate action is necessary and procrastination is dangerous. In some preoperative, and many postoperative conditions, both the sulfas and penicillin have proven of great aid in shortening the course of infections and thus aiding healing indirectly.

Dr. Keefer, returning to the discussion stressed the importance of preventing congenital syphilis by treating the expectant mother with what is called "a course" of penicillin lasting about 8 days. In a contingency one can give streptomycin and penicillin synchronously. But, unfortunately, in rheumatic fever, where this might be very desirable, the results have been practically negative.

These round-table discussions are likely to set the pace for future occasions. The method is simple and stimulating when it becomes "time to consult the experts".

Starvation and its Treatment

In medieval times starvation was often widespread in Europe. Populations were eliminated by it as well as by associated diseases such as typhus and the plague. Human life was cheap. Even if known, neither preventive nor remedial means were employed to stay the holocaust or rehabilitate the sick.

In these days, in peace time, life has value. In this respect the situation in civilized countries is very different from a few hundred years ago. The pendulum has swung to the other extreme; a swing thought by many to be too far.

During the two great wars starvation was greatly in evidence, in the last war especially so, due almost wholly to the lack of food and the unsanitary conditions prevailing in German and Japanese prison camps. In some of these the object seemed to be if not to kill the prisoners at least to allow them to die, as means to preserve life were absent to a very large extent. In some, if not most, of these camps this starvation was accompanied by those diseases which flourish in dirty surroundings. Typhus cropped up to a certain extent and famine diarrhea was almost universal. In London *Lancet*, April 19 last, R. O. Murray, late Lieut. Colonel R. A. M. C., has an article on recovery from starvation and it is instructive and useful to learn that knowledge of the effects of starvation has increased almost beyond belief during the past few years. As a result, many opinions heretofore held on the subject will have to be discarded or revised. It was found that in Europe when all foods were scarce and a shortage of vitamins was to be expected, deficiency diseases were rare. The explanation appears to be that starvation or semi-starvation lowers the metabolic processes and lessens the need for vitamins and other essential nutrients. Moreover, in Europe at any rate, food shortages led to breads of high extraction being made and eaten as well as to an increased consumption of various types of vegetables. Thus, there was a proportionately higher intake of vitamins and mineral elements, iron for example, than are present, as a rule, in peacetime diets.

In European concentration camps there was gross starvation, little edema, very severe diarrhea, intense mental apathy and physical lethargy. The extreme loss of fat and muscular tissue, lowering of the hemoglobin and plasmaprotein levels and consequent prevalence of tuberculosis, had been expected.

Views on treatment showed the most radical changes. It had been believed theoretically that a useful measure in the early stages of treatment of severe cases was the parenteral administration of protein hydrolysates. But it was quickly found that such preparations were only useful in the few cases where it was impossible to feed patients orally. In most instances the best results were obtained in the initial stages of treatment by oral feeding, skim milk being preferred to the unpalatable protein hydrolysates. O. R. Murray reported that after the initial stages his results suggested a far higher intake than the 3,000 calories employed in the latter stages by F. M. Lipscomb (*Lancet*, 1945 Vol. 2, page 313). Murray, whose patients were 23% below normal weight, apathetic and dull when seen two or three weeks after liberation, were given a diet of the enormous caloric value of nearly 8,000 daily and improved greatly. The most surprising feature was that this big intake was well tolerated. There were no apparent ill effects and judging from the rate at which the patients gained weight it appears that the diet was utilized to the benefit of mind and body. It may be asked, would

it have been possible to give a diet of such size even earlier? It has been the belief that in the first stages of treatment after starvation large amounts of food are harmful and may be fatal. G. B. Leyton (*Lancet,* 1946 Vol. 2, page 73) records that Russian prisoners ate frequent large meals in the earliest stages of recovery from starvation with no injurious after effects. In any event, if not proven otherwise, it appears likely that after the first few days diets of the magnitude given by Murray would hasten recovery. Also Murray states in cases which came under his heroic treatment that once improvement set in, it usually developed into a complete recovery.

The results reported by Dr. Murray convey the impression that the greatest benefit from the gargantuan diet arose in the first week and was in proportion to the amount or degree of starvation. As weight increased mental and physical rehabilitation improved correspondingly.

In Japanese concentration camps food was not only inadequate but very deficient in vitamin content. Deficiency diseases, therefore, were terribly prevalent.

Veteran Physicians' Right to Re-employment

Under the Selective Service Act of 1940, a medical director or a physician in any similar capacity who has been in the employment of an industrial company prior to his entry into the Government service is entitled to re-employment in that position upon his honorable discharge from the service, unless the circumstances of the employer company have so changed as to make re-employment impossible, or, at least, unreasonable.

This statute has been construed and applied to cases of such physicians in two instances. In the first case, Kay v. General Cable Corp. (1944. 144 F. 2d 653) the veteran physician had been the company doctor, originally employed on the basis of a full working week at its plant, but whose working time had been reduced to three hours a day except Saturday and Sunday, although he was on call by the company at any hour of the day or night to visit injured employees at their homes or at the hospital. The company paid him a regular salary, and had described him in his affidavit for his deferment as a regular employee operating on a twenty four hour schedule. He had also been employed as the physician for an employee's Health Association. Upon his return from military service the Association declined to re-employ him, preferring his successor, and the industrial company took the position that it makes for greater efficiency and avoids some loss of the workers' time to have the same physician for both the company and the Health Association.

But, the court said, the phrase "unless the employer's circumstances have so changed as to make it impossible or unreasonable" was primarily, no doubt, intended by Congress to provide for cases where necessary reduction of the employer's operating force or discontinuance of some particular department or activity would mean simply creating a useless job in order to re-employ a veteran. "Change of circumstances" would not apply to a case where it would simply make for greater efficiency for the company to continue in the veteran's position one who had occupied that position in the veteran's absence on military service. More than some loss of efficiency and possibly some additional expense would be needed to justify a refusal to reinstate a veteran within the protection of the Act.

"In most cases", the court said, "it is possible to give some reason for the refusal. 'Unreasonable' means more than inconvenient or undesirable. The operation of the Act will not be limited to merely capricious or arbitrary refusals. The statute 'should be construed as liberally as possible so that military service should entail no greater set-back in the pursuit or career of the returning soldier than is unavoidable'." The doctor here was held entitled to reinstatement, notwithstanding that he also maintained his own office, where he received his private patients.

In the second case, Featherston v. Jersey Central Light and Power Co. (1946, 66 F. Supp. 882) the Federal District Court for New Jersey held that a physician who had been employed as a medical director by a public utility company, had entered the United States Army as a major in 1942 and had been discharged as a lieutenant colonel in 1946, was not entitled to re-employment as medical director for the company under the Act, because the utility's circumstances had so changed as to make re-employment impossible, or, at least, unreasonable.

The plaintiff had been employed by the utility company as chief company physician in a capacity similar to that of general legal counsel. In 1934 the company changed its insurance carrier and undertook to operate and control the investigation and defense of claims and the medical supervision of its employees, which had formerly been controlled by the insurance carrier. Plaintiff's duties

were in connection with this work. He maintained three offices for other business concerns, where he served as medical examiner, and one for general practice. He was also attending surgeon on the staff of two hospitals, and medical examiner for another concern.

In 1944 the ownership of the company changed and it no longer operated the department supervised by the plaintiff. The company's present carrier employs counsel and medical examiners of its own choosing. When accidents to its employees occur, the company makes a report to its insurer, which handles the matter from that point. Review of pre-employment examination by local physicians, formerly made by the plaintiff, is now done by the company's Welfare Department. The company's vice president testified that under this arrangement there is no need or place for medical activities formerly performed by the plaintiff.

It was held that the change of insurance carrier in 1944 "made away with not only plaintiff's position but of the investigator and counsel as well." The court was convinced this was done in good faith. "Thus the defendant's circumstances were so changed as to make it unreasonable to compel the defendant to re-employ the plaintiff in a position the principal duties of which had completely disappeared."

Low Back Pain

In Britain recently there have been numerous cases of pain or a feeling of oppression or tightness in the lower part of the back, which has been attributed by many to the hot and dry weather experienced during these weeks. This may have been an initial or contributory factor but not the main cause. In the *Lancet,* August 23, 1947, J. D. Paulett, M. K. C. S. discusses the subject from various points of view and as he was a captain R. A. M. S. in the war he had opportunities of seeing many cases and therefore can write with authority. He states that cases of low back pain are commonly divided into the organic, labelled fibrositis, rheumatism, lumbago and psychogenic.

The question of the backache was investigated at a military general hospital in Italy, 1944, and in 25 cases no organic disease was discovered. The average age of these patients was 32.5 years and their average length of army service six years. In fifteen cases transferred from other medical units, the previous diagnosis had been fibrositis in 9 and some form of rheumatism in 6. In those described as "rheumatism", "arthritis", "myalgia", etc., the blood sedimentation rate was normal, there was no fever, and no involvement of joints.

Mr. Paulett analyzes his cases thoroughly but contends that neither irksome military duties involving fatigue, wearing of equipment, nor the weather were aggravating factors. Though fog, rain and damp were alleged to have caused rheumatism in the United Kingdom, sun, dust and heat were blamed in Italy. Of the 25 patients, 20 had an inadequate personality. But it is impossible to discuss in any detail this most interesting and critical paper.

The following is the author's summary. It is an unselected series dealing with 25 cases of low back pain without organic disease in soldiers. These cases would be ordinarily diagnosed as fibrositis. The average duration of the disorder was 3½ years indicating that it was chronic or relapsing. The pain was uniformly described as a dull ache acutely sharpened from time to time by sudden jabs arising spontaneously or precipitated by trivial movement. There was abundant evidence of psychoneurosis or of a personality defect in all cases. It was impossible to establish any relationship between pain and fibrositic nodules. Evidence is presented which suggests that these nodules are innocent vagrants of normal muscle tissue.

By the artificial production of lasting low back pain with 0.2 c.cm. of a 10 percent silver nitrate solution, it was proved that these psychoneurotic subjects with low back pain were not hypersensitive to painful stimuli, that their spontaneous backache was not due to painful muscle spasm and that it was perpetrated by conversion hysteria.

Low back pain may be temporarily abolished by intra-muscular injections of procaine or saline or by simple dry needling, but not by cutaneous, subcutaneous injections or needling. Pyrexia, either natural or artificial, caused the pain to relapse. Low back pain had the same clinical and experimental characteristics as has the inflammatory pain of Da Costa's syndrome and both occur in the same type of person. Evidence is presented that these and similar pains occurring elsewhere in such subjects differ only in their site and represent the same psychosomatic manifestation. Low backache of the kind described should not be diagnosed as fibrositis, but may be conveniently called functional backache. The mechanism of low back pain remains obscure.

Mr. Paulett's critical article makes a reader ponder and suggests that the diagnosis of low back has been ascribed too freely to rheumatism in some of its forms and to weather. There seems to be evidence to indicate a psychogenic cause or at any rate as one of its causes.

News Items

Allergy Convention.—The American Academy of Allergy will hold its annual convention at the Hotel Jefferson, St. Louis, Missouri, December 15-17, 1947.

In order to bring to the medical profession the latest methods of diagnosis and of therapeusis in the allergic manifestation, the Academy invites all interested physicians to attend as guests by registering without fee.

General Bliss Goes On Pacific Tour.—Major General Raymond W. Bliss, USA, Surgeon General of the Army, left San Francisco recently with the subcommittee of the House Committee on Armed Service for an inspection tour of medical facilities in the Pacific area.

Army Medical Service Corps Created.—Lt. Col. Othmar F. Goriup, chief of the allotment and requirement branch of the Medical Personnel Division in the office of the Air Surgeon, will act as director of the newly created Medical Service Corps of the Army Medical Department. He will hold the rank of full Colonel, Brig.

This new service, which was established by the last Congress, will include commissioned specialists in fields closely allied to medicine, such as optometrists, bacteriologists, entomologists, psychologists, sanitary engineers, pharmacists, chemists and electronic experts.

WHO.IC Plans World Programs.—The Fourth Session of the World Health Organization Interim Commission which met recently at the Palais des Nations in Geneva gave material support on an international scale to mankind's eternal fight against disease.

Representatives from 15 nations decided on: (1) Positive, aggressive action to combat such world-wide public health menaces as tuberculosis, malaria, venereal disease and influenza. (2) Plans for the First World Health Assembly, which is expected to be held next spring or summer in the Western Hemisphere with the final selection of a definite site left to the WHO.IC chairman, and (3) a budget to finance its 198 programme: General Fund—$1,528,324; Filled Services—$1,500,000.

Attending the sessions were representatives from Australia, Brazil, Canada, China, Egypt, France, India, the Netherlands, Norway, Peru, United Kingdom, U.S.S.R., U.S.A., Venezuela, and Yugoslavia.

Dr. Andrija Stampar (Yugoslavia), president of the Yugoslav Academy of Sciences and Arts and professor of public health and social medicine, University of Zagreb, is WHO.IC Chairman. Dr. Brock Chisholm is Executive Secretary.

American Red Cross Instigates National Blood Program.—The American Red Cross, in its National Blood Program, has set up as its goal the free distribution of sufficient blood and blood derivatives for medical use throughout the nation.

Under the guidance of Red Cross National Headquarters, individual chapters will have the responsibility for conduct of the program within their communities, thus working closely with medical societies, official health agencies and hospitals. Some of the blood collected, through permanently established donor centers or through mobile units, will remain in the community for use as whole blood; some of it will be shipped to commercial laboratories with which contracts will be made to fractionate blood into valuable derivatives.

Recall Women for Army Medical Corps.—A recall quota for officers in the Women's Medical Specialist Corps has been established in accordance with authority granted by the Department of the Army.

Dietitians and Physical Therapists who served honorably during World War II and who are now on inactive status may request extended active duty in the Army United States. Officers will be recalled to active duty in the grade held prior to reporting to a Separation Center. Individuals desiring to apply for extended active duty must make application in writing and must meet the following requirements:

Applicants accepted for such duty shall be unmarried, have no dependents under 14 years of age and be physically qualified.

Dallas Burton Phemister Lectureship.—The University of Chicago has recently proposed a Dallas Burton Phemister Lectureship to honor the world-renowned surgeon whose forty years in clinical surgery, teaching and investigation have brought him eminence as a medical scientist. The lectures are to be given regularly at the institution by distinguished workers who have made outstanding contributions to medicine and its allied sciences. The lectures will also be published as "The Phemister Lectures".

Reorganization at Yale.—Complete reorganization of the Department of Psychiatry at Yale University, with emphasis on the newest methods of treating mental illness, expanded instruction of medical students and residency training in cooperation with the Veterans Administration, was announced recently by Dr. C. N. Hugh Long, dean of the Yale School of Medicine.

The psychiatry changes at Yale involve several personnel changes. Dr. Frederick C. Redlich has been appointed executive officer of the department. Dr. Burness E. Moore is physician-in-charge of the Psychiatric Inpatient Clinic and Dr. Richard Newman is physician-in-charge of the Outpatient Clinic. Other new appointments include: Dr. Lawrence Kubie, clinical professor of Psychiatry; Dr. Robert P. Knight, medical

director of the Austen Riggs Foundation of Stockbridge, Mass., also as a clinical professor; and Dr. Paul Yakovlev, director of research and training at the Connecticut State Hospital, as associate clinical professor. The nursing service has been reorganized under Miss Margaret Hulburt, assistant professor of psychiatric nursing in the Yale School of Nursing.

An interesting aspect of the new program is the fact that Yale Divinity School students will serve as male attendants in the wards as a part of their teaching program. Increasing emphasis also will be placed on instruction of medical students in psychiatry. This will be accomplished through instruction of students in psychiatry in the medical Outpatient Dispensary as well as in the Psychiatric Clinics.

A new residency training program in neuropsychiatry, under the Dean's Committee of the Veterans Administration, has been started. Dr. Theodore Sohler has been appointed as chief of neuropsychiatry at the Newington Veterans Hospital in connection with this program. Veterans Administration Contract Clinic is presently operating in the Psychiatric Outpatient Clinic; Connecticut post-graduate seminar in Neuropsychiatry sponsored by the Joint State Hospital Committee and Yale, has been organized by Dr. Paul Yakovlev along the lines of the seminar in neuropsychiatry which he conducted at the Metropolitan State Hospital in Massachusetts for many years.

Finland's Technical Institute.—Dr. Martti Levon, director of Finland's Technical Institute, Teknillinen Korkeakoulu, is most anxious to receive gifts of scientific and technical books and periodicals from America to take the place of those which were destroyed during the war. In the post-war recovery that the Finns are making, the lack of technical library facilities is a very serious handicap. Any such gifts should be marked "For the Institute of Technology, Helsinki", and sent to the Legation of Finland, 2144 Wyoming Ave. Northwest, Washington, D. C.

U. S. Increases Expenditures for V. D. Research.—Federal appropriations under the Venereal Disease Control Act of 1938 has been set by Congress for the fiscal year, July 1, 1947 to June 30, 1948 at $17,399,500 to finance a venereal disease division of the U. S. Public Health Service, general grants in aid to states, the rapid treatment center program, and special projects. The new appropriation is an increase of $159,500 over the 1946-47 allotment.

Currently, the Venereal Disease Control Division, is engaged in an intensive case-finding campaign. A feature of the program's educational work is the publication by the V. D. Educational Institute, Raleigh, N. C., in cooperation with the U. S. Public Health Service, entitled " . . . The Undiscovered—The Challenge to V. D. Control Today".

New Project Caters to Mismated Feet.—Dr. Dale D. Dutton, vice-president in charge of Christian Relations, Bristol Manufacturing Corporation, Providence, has initiated his first large-scale "do good" project. This is the Benefit Shoe Foundation, a non-profit corporation offering single shoes and odd pairs at cost for amputees, paraplegics and others with mismated feet.

This unique undertaking will not attempt to provide orthopedic or special shoes of any kind. It will simply make available regular standard make shoes—singly or in mismated pairs.

Dr. Dutton, a former Baptist minister, estimates that there are nearly half a million adults in the U. S., amputees and persons with mismated feet, who can be served by his project. Men have a choice of nine styles, ten sizes and five widths. Women have a choice of eight styles, eleven sizes and five widths.

More Public Health Nurses Needed.—Despite the fact that more nurses are currently engaged in Public Health work than at any other previous period, the number is failing either to meet current needs or to keep pace with the increasing population, according to the 1947 annual census of Public Health nurses.

That the present total is inadequate to supply public demand for public health nursing services is pointed out in the census report:

"Nurses are needed to fill the 2,489 vacancies in budgeted positions which were reported by the States at the beginning of the year 1947. They are needed to serve the 1,087 counties that had no rural public health nursing services January 1, 1947, and to participate in the nursing services of the new and expanding programs in the fields of mental hygiene, cancer control, nutrition and others in process of development."

American Heart Association Announces Forthcoming Drive.—The nation's leading cause of death—diseases of the heart and circulation—will be attacked for the first time through a direct public appeal for funds, the American Heart Association announced, in disclosing plans for its 1948 observance of National Heart Week. The drive has been scheduled for the week of February 8, as the focal point of its continuing campaign of research, education and community service in cardiovascular disease.

Slide Service for Medical Men.—R. F. Nylen and Associates, Chicago, has announced the establishment of a service for medical men. Under this plan slides will be made to order at extremely low cost for the illustration of clinics, forums, lectures and schools.

This group of technicians processed over 35,000,000 slides from negatives during the war, reducing them from the old cumbersome size to small compact 35 mm. black-and-white slides, unmounted or mounted in cardboard frames.

Rocket Flames Now Measurable.— Rocket exhaust flames believed to reach temperatures of as much as 4,000 degrees F. can be measured by a new device described recently at the Thirty-Second Annual Meeting of the Optical Society of America, by Donald H. Jacobs, supervisor of the Long Range Navigation Section, Aerophysics Laboratory of North American Aviation, Inc. The measurement is achieved by passing a beam of light through the flame to a photoelectric cell.

In use the instrument passes one beam of light through the flame and another through a series of mirrors to reach the same photoelectric cell but by passing the flame. These beams of controlled intensity fall alternately on the photoelectric cell, and the temperature can be calculated from the relative intensities required to produce the same effect on the photoelectric cell.

It was also mentioned at the meeting that there is a new motion picture camera which will take more than 5 million pictures a second.

Public Health Fellows Established.—Twenty graduate engineers from 16 states and the Territory of Hawaii have accepted fellowships for a year of graduate study in public health. These fellowships, supported by a grant from the National Foundation for Infantile Paralysis from March of Dimes Funds, are administered by the U. S. Public Health Service. The course includes 9 months of academic study in a school offering graduate work in Sanitary or Public Health Engineering beginning this September, plus 3 months of supervised field training in a State or local health department. Following satisfactory completion of academic courses, it is expected that each fellow will receive either the Master of Public Health or the Master of Sanitary Engineering degree.

Yale ROTC Unit.—An army ROTC Medical Unit, designed to take advantage of special facilities in preventive medicine and public health at the Yale University School of Medicine, was activated at Yale, coincident with the opening of the fall term. The unit is one of forty-three being set up this fall at medical schools throughout the nation.

Medical students enrolling in the new program will be required to take a four-year elective course in Military Medicine, unless credit is given them for military service or previous ROTC training. Third and fourth-year medical students enrolling in the Advanced Course will be given special instruction in military preventive medicine, field medicine and surgery, the medical aspects of atomic warfare, and other technical subjects of a military nature. They will be required to sign a contract agreeing to complete two years of work in Military Medicine and to attend an eight-week period of summer training between their third and fourth-year of medical school.

Advanced Course students in the program will be paid at the rate of $23.70 a month while in medical school and at the rate of $75 a month during the summer training period.

Upon the successful completion of the Advanced Course, medical school graduates will be offered commissions as First Lieutenant, Army Medical Corps, Organized Reserve.

Instructor for the new course is Major Douglas Lindsey, MC, USA, who has been named assistant professor of military science and tactics. He will work in close connection with the Departments of Preventive Medicine and Public Health at the School of Medicine.

Urology Essay Award.—The essay dealing with the results of some clinical or laboratory research in urology meriting the first prize of $500 will appear on the program of the American Urological Association's forthcoming meeting scheduled for May 17-20, 1948. Competition is limited to urologists who have been in such specific practice for not more than five years and to residents in urology in recognized hospitals. Two other prizes, one of $300 and the other of $200 are also offered by the association. Full information can be obtained by writing to Dr. Thomas D. Moore, 899 Madison Ave., Memphis, Tenn.

Metropolitan Reports Reduction of Traffic Deaths.—Among the industrial policy holders of the Metropolitan Life Insurance Company, it has been statistically shown that the motor vehicle death rate through June was 14.6 per one hundred thousand persons. This rate is seven percent below the figure for the first half of 1946 and nearly one-fourth less than that for the same months of 1941.

It has also been reported by the company that since the modern treatment of diabetes larger dividends have been yielded in improved health and longevity of diabetic patients.

University of Illinois to Offer Allergy Course.—A twelve month post-graduate course designed to train specialists in allergy will be offered by the University of Illinois to six physicians during the 1947-48 school year. The course, unique in medical school curricula, represents a comprehensive program for clinical training and research in allergy. It will be offered by the University's allergy unit, a joint organization of the Colleges of Medicine and Pharmacy.

X-Ray Films Augment TB Program.—More than 53,000,000 Army chest x-ray films of World War II veterans, the largest single group of such films in the world, are to be used by the Veterans Administration in its long range anti-tuberculosis program. In addition the VA has established a "central case register" of all World War II veterans who were discharged from the armed forces because of tuberculosis.

University Extends Cancer Research.— The University Clinics of the University of Chicago observed its twentieth anniversary recently by disclosure of plans to extend its cancer research program through use of the promising new possibilities opened by the development of atomic energy.

Already engaging the attention of seventeen scientific departments of the University, and with an annual research budget in excess of $500,000, the expanded cancer study will capitalize on the five-year backlog of experience gained by University scientists during the development of the atomic bomb. Focusing of this specialized knowledge on the problem of cancer is facilitated by the unique organization of the Clinics. Planned by the University as early as 1916, when it was recognized that the complexity of medical problems required teamwork for productive investigation, this foresight is proving highly advantageous today. The cooperation between nuclear scientists and clinicians makes possible the use of radio-active isotopes from atomic piles and other means of investigation resulting from nuclear research.

Center of the expanded cancer research work will be the new $1,600,000 Nathan Goldblatt Memorial Hospital, construction of which will start next spring.

Personal—*Dr. Paul B. Magnuson* has been selected as acting chief of the Veterans Administration Professional Services. Dr. Magnuson, former professor of surgery, and chairman of the Department of Bone and Joint Surgery, Northwestern University Medical School, Chicago, succeeds the late Brigadier General Elliott C. Cutler.

The new associate professor and chairman of Southwestern Medical College's Department of Biophysics, Dallas, is *Dr. Allen F. Reid.* At the Institution, Dr. Reid will initiate a biophysical cancer research program. Prior to his four year association with the Manhattan Project he was director of radio activity laboratories at Columbia University and chemical research assistant at the University of Minnesota.

The director's duties of the Department of Obstetrics and Gynecology, Long Island College Hospital, New York, have been assumed by *Dr. Frank P. Light.* Dr. Light joined this institution's medical staff in 1935, holding the position of assistant obstetrician and gynecologist and as assistant chief of the Obstetric and Gynecological Clinics.

Dr. Granville W. Larimore has been appointed director of the New York Department's Office of Public Health Education. His last position was with the American Cancer Society, where he was educational superintendent.

Dr. James E. Perkins, deputy commissioner, Department of Health, New York, has recently been appointed managing director of the National Tuberculosis Association. A senior surgeon with the rank of lieutenant-colonel, U. S. Public Health Reserve, Dr. Perkins in 1945 was assigned to the Italian Medical Nutrition Commission, acting as its co-director. He succeeds *Dr. Kendall Emerson* in his new position. Dr. Emerson, who has held the managerial directorship of the Tuberculosis Association since 1928, has been asked to remain as a consultant.

Dr. Frank E. Wilson, former deputy administrator of the American Red Cross, has been newly appointed administrator of American Red Cross Medical services. In this new post he will be responsible for disaster medical and nursing service and employees' health service. He succeeds the late Dr. Courtney Smith.

The newly appointed superintendent of the Veterans Administration Hospital, Fort Logan, Colo., is *Dr. Robert C. Cook,* VA's former deputy medical director, Washington, D. C. Dr. Cook, who has been Dr. Paul R. Hawley's assistant since January, 1946, had much to do with the reorganization of veterans' medicine in VA institutions.

He recently had accepted the position of medical director for VA clinics and hospitals in the states of Colorado, Wyoming, Utah and New Mexico with headquarters in Denver; however when Dr. J. Shirley Sweeney, present manager at Fort Logan, resigned to return to private practice, Dr. Cook requested assignment to that post.

Dr. James M. Martin, aged 80, pioneer Southwestern radiologist and professor emeritus of radiology at Southwestern Medical College, recently passed away. A former president of the American College of Radiology, Dr. Martin won national recognition with his x-ray technique for the treatment of skin cancer.

Distribution of Radioisotopes

More than 170 institutions and researchers in 92 locations have received shipments of radioisotopes from Clinton Laboratories, Oak Ridge, Tennessee, according to a report issued by the Atomic Energy Commission, which marks the first anniversary of the initial shipment, August 2, 1946.

No. 1 consignee was Barnard Free Skin and Cancer Hospital, St. Louis, Mo., consisting of a unit of C-14 for fundamental research in tissue growth. Since that time 1,092 shipments have been made.

During the year, New York's Memorial Hospital received the largest shipments of radioactive iodine for thyroid study and treatment. The biochemistry department of Vanderbilt Medical School received the majority of shipments of radioisotopes, while the greatest total activity of radiophosphorus for use in treatment of blood dysfunctions went to Washington University Medical School.

LETTER FROM BRITAIN

(From Our Own Correspondent)

Affairs in England are in a state which has created much uneasiness and which the average Briton does not understand. However, there are a few current signs which may bring about a clarification of this situation. Medical matters are in a similar state of flux as those of other professions and trades. Nothing definite is known as to what kind of control will be handed down to the medical profession. It is obvious that great changes are in view, whether for better or for worse it is impossible to predict. The old order is passing and doctors and surgeons must progress with the times. The health of the people is the supreme law and the duty of the medical profession is to extend help toward the conservation of this great axiom.

Science in the British Colonies

Dr. J. L. Simonsen, president of the section of chemistry, emphasized that only with the help of men of science could many of the colonial problems be solved. He said that it was of primary importance to control the foremost insect enemies of man and animals, the mosquito and tsetse fly. Experience with the new insecticide sprays against the mosquito indicated that the problem is not insoluble and if, by a coordinated attack on malaria in conjunction with the use of prophylactics, such as paludrine, met with success, science would have made an outstanding contribution to colonial prosperity. The control of tsetse, the transmitter of typanosomiasis, presented a problem of far greater difficulty. The fly can be killed if brought into contact with insecticides, but it is not known yet how best this can be done. Possibly the use of smoke or smoke bombs from aircraft might be a solution, but the problem must be vigorously attacked on a scale commensurate with its magnitude.

The Part of Scientists in Operation Production

Professor J. D. Bernal of Birkbeck College, London, spoke on operation production at the meeting of the British Association. He pointed out that an attempt to meet the situation here by simply urging people to work harder and longer hours could not possibly be successful. He insisted that operation production had to be considered with the same urgency and common purpose as "operation overlord" (the plan for the invasion of Europe). In his opinion only a combination of economists, engineers and scientists could achieve this. Professor W. C. Wilson, professor of surgery, Aberdeen University, said that to bring about perhaps the latent forces of interest and idealism in the medical profession could be mobilized so that they might provide a research weapon of immense power for use in some new fields such as social medicine, but he was sure that voluntary cooperation must be sought. Anything in the nature of compulsion or Government regulation would defeat its own ends.

Teaching of Physiology

Professor Winifred Cullis, at the same meeting, gave an address on physiology asking for the training of more physiologists and a wider use of their services. It was pointed out that well qualified teachers of physiology would be of use in many directions. They were much needed in the general colleges as well as in those devoted to the training of teachers of domestic science and physical learning. In industrial establishments they could be of use in collecting the normal physiological data now recognized as necessary in the departments of social medicine. Social science workers would be helped by such instruction. In very small university classes and in adult education such teachers could play an important part. To provide such instructors it would be necessary for the institution to increase the number of students taking honor courses in physiology but who are not going on in medicine. Professor Cullis expressed the conviction that this wider teaching of physiology would result in a better understanding of various problems ultimately associated with healthy living.

The Battle Against Harmful Bacteria

Quite an interesting address at the meeting of the British Association from the medical point of view was that of Sir Alexander Fleming in the Chemistry and Botany sections on penicillin and other antibiotics. He said that penicillin was not the first antibiotic used for the treatment of infections. Fifty years ago a substance resulting from the growth of a bacteria was recommended for the treatment of diphtheria and other infections but the results were not dramatic and it disappeared. However penicillin had a powerful effect on some bacteria, but was without action on others. Many bacteria insensitive to its action would grow in a penicillin solution and produce a substance which broke up the penicillin molecule to render it inert. Sir Alexander Fleming said that it was no good sucking a few penicillin lozenges to cure a septic infection of the finger. Used properly it gave remarkable results but misuse only led to disappointment. Furthermore, the success of penicillin had led workers all over the world to try to find a better antibiotic. It seems ridiculous that penicillin which had its origin in a chance observation should remain supreme. Sir Alexander Fleming several years ago discovered penicillin as he said more or less by chance but the history of its progress is too well known to require recapitulation.

The speaker stated that in his opinion, the study of antibiotics was going to change medical treatment in many ways. What was possibly even more important than the effect of the antibiotic on bacteria in the body was the discovery in these antibiotics of new chemical linkages which were destructive to bacteria. With a knowledge of those linkages the chemist would doubtless be able to prepare modifications which would have all the advantages and none of the disadvantages of the natural product.

Book Reviews

Anthropology

Up From the Ape. By EARNEST ALBERT HOOTON, professor of anthropology, Harvard University, curator of somatology, Peabody Museum of Harvard University. Revised edition. Illustrated. New York: The Macmillan Co., 1946. Pp. 788. Price $5.00.

In the field of human and primate paleontology masses of new data on human evolution have accumulated from the study of the newly discovered remains of numerous extinct forms of apes and of fossil man. Since 1931, the date of the first edition of this work, these exceed in number and importance all observations made in the whole period before that date. There have also been tremendous advances in the knowledge of the anatomy, physiology, and psychology of the great apes and the lower primates and of their social habits in the wild. All of this the author has brought up to date in this second edition and he expresses the opinion that our knowledge of extinct men and living infrahuman primates exceeds that in the taxonomy of present human races and in the biology of man in general. Human genetics, even though still mainly factual, is important. Endocrinology is advancing slowly to a secure foundation as an experimental science in clinical medicine, but its part in human evolution is still undetermined.

The text is divided into six major parts. The first part treats of the general relationship of man in the animal world. Adaption changes are noted in the generally similar parts of similar grouped animals in accordance with their developed or developing needs. As one gets to the highest divisions, the deductions in classification made from physical appearances may now be corroborated with blood precipitin tests which have a great deal of accuracy.

Part 2, takes us through the development of certain environmental evolutionary stages associated with land-dwelling of quadruped animals, and with tree habitat; with the development of certain faculties, -breathing, hearing, chewing, talking, thinking, etc., associated with further development of anatomical structures, the teeth, the jaw, the brain, etc.; and with changes in outward appearance.

Part 3, discusses prenatal and postnatal development, with adolescence, with the propagation of offspring, with bringing up a family, and with getting old and dying.

Part 4, goes back to prehistoric and fossil sources for evidence with which to corroborate what we surmize or deduce from all other sources of information. This takes us to aboriginal evidence in all parts of the world. It ends with the attempt to construct some kind of a family tree out of all of the accumulated facts.

Part 5, speaks of genetics, and racial classification: of the physical tests of race—skin and hair color, external form, and certain skin markings; of the physiological tests—basal metabolism, growth, color blindness, blood groups, etc.; of racial pathology; and of the technique in making these classifications. Then follows a discussion of the various groupings in accordance with their characteristics and of their geographical distribution; all of this followed with notes upon racial mixtures and upon racial quality.

Part 6, discusses the anthropology of the individual. The problem of classification is based upon the study of individual units in relation to group phenomena. The immediate purpose of this is to help in diagnosing the capabilities of the individual from every relevant scientific approach and thus guide him to the most successful end in human society. The ultimate purpose is to determine the relationship between the human organism and human behavior. All of this results from organic and environmental factors. The Sheldon system of somatotyping, its components and its technique is described and this is followed by a discussion of many intimate factors in human structure, health and disease.

The study of the physical anthropology of the individual in its relationship to his physiology, psychology, and behavior, opens up to the physical anthropologist a field of immediate, vital, and almost universal usefulness, but only when he works in close cooperation with the various branches of medicine and with other related sciences. This constitutes a study of total man and it is certain that this will yield great human dividends.

In revising this text, the author has taken care to make the text useful for to-day's courses in human evolution and physical anthropology. All material has been brought up to date to include the many important new developments in this field. This edition also contains laboratory instructions for measurements on the skeleton and on the living, together with sample measurements and observation blanks. This feature will be of special interest to teachers who wish to give elementary laboratory work.

This book may be considered as a companion and complementary volume to Gates' book on Genetics. It is a valuable contribution to anthropological literature, and does credit for its substance to its author, and for its attractive physical appearance to its publishers.

Physio-Chemistry

Practical Physiological Chemistry. By PHILIP B. HAWK, Ph. D., president, Food Research Laboratories, Inc., Long Island City, N. Y.; BERNARD L. OSER, Ph. D., director, Food Research Laboratories, Inc., Long Island City, N. Y.; and WILLIAM H. SUMMERSON, Ph. D., associate professor of biochemistry, Cornell University Medical College, N. Y. Twelfth edition. With 329 illustrations, and 5 color plates. Philadelphia and Toronto: The Blakiston Co., 1947. Pp. xiv + 1323. Price $10.00.

Much new material has been added in the Twelfth Edition of this book, including new tests, methods, and preparations, and many new

quantitative procedures for blood and urine analysis; including material on the polarograph; on isotopes; on the sulfa drugs; on metabolic antagonists and antibiotics; on the Warburg tissue-slice procedure; on the theory and practice of photometric analysis; on the electrophoretic fractionation of the plasma proteins; on the composition of foods; and on the various vitamins and their clinical relationships.

There is an increasing tendency to abandon the use of visual colorimeters for the newer electrical measuring instruments: the photoelectric photometers, spectrophotometers, fluorophotometers, etc. The text, therefore, provides descriptions of both visual and photometric methods of measurement. Some of the colorimetric procedures developed primarily for visual use have been slightly modified by the authors to permit adaptation to photometric measurement.

Changes have and are occurring in protein chemistry, and the text describes how the development of electrophoretic and ultracentrifugal methods for protein separation has necessitated a revision and re-evaluation of older concepts based upon the use of concentrated salt solutions. In intermediary metabolism studies, the use of isotopes for "tagging" molecules or portions of molecules through the metabolic processes has afforded much new information and frequently impelled a drastic reinterpretation of existing data. Many other examples could be cited.

Obsolete tests and methods, or those of minor importance, have been omitted from this edition in order to permit the inclusion of new matter. Nothing of fundamental value present in previous editions, however, will be found absent from this edition.

All phases of the subject are treated very thoroughly throughout the book. For instance, in discussing milk, all of the physical and chemical characteristics are cited including the procedures for all requisite tests; the methods for coagulation of milk and for the preparation of casein, and their chemical and physical properties; the detection of important minerals and of lactose; the detection of preservatives; and the quantitative analysis of the total milk.

The text first considers the physiochemical properties of solutions and then goes on to the discussion of carbohydrates, fats and proteins, the importance of the last being shown by the relatively large space assigned to it in the book. The section on the amino-acids is especially good and apropos at the present time. Next the chemistry of the various forms of organized tissues is taken up. Following this, there are sections on the chemistry of the enzymes and of their physiologic action; and extensive chapters on the whole subject of digestion throughout the various parts of the alimentary canal. There are chapters for the bile, for intestinal absorption and for the chemistry of the residues of digested food including the chemical processes involved in putrefaction, and detoxication in the intestinal and fecal content.

The chemistry of blood and lymph, of blood analysis, of respiratory exchange and of neutrality regulation, introduces one to energy metabolism and to the interrelationship of the hormones in the various processes of organic and inorganic metabolism. A large section is devoted to the chemistry of the urine including the study of its sediment and of urinary calculi. The supplementary value of vitamins in the body economy is described extensively and the authors point out that their detection is only biologically possible in deficiency conditions. It is known that their activity is part of enzymic reactions of a highly complex nature.

The various known antibacterial substances (antibiotics), the various methods for their detection, their measure and standardization are described as fully as present knowledge permits. The antagonism of certain biologically active products complete the text.

Finally there is a fairly large appendix containing miscellaneous information of all kinds pertaining to the subject. Bibliographic documentation is abundant and is scattered throughout the text and at the end of each chapter. Throughout the book, there are full directions for many experimental procedures which are exceedingly valuable.

Nomenclature, symbols, etc., are in accordance with modern conventions or follow authoritative recommendations, and have been altered from the style of previous editions whenever such change appeared desirable without sacrificing simplicity and clarity of presentation. Whenever necessary full explanation is given. Particular attention has been paid to the illustrations. Some have been redrawn, and many new ones have been added.

In many respects, this new edition necessarily reflects the fact that the science of biochemistry is passing through a transition period. The authors emphasize the fact that many of the chapters have been entirely rewritten; and that all of them have been carefully re-examined to insure their application to present-day knowledge, as well as to their clinical and theoretical phases. It is clear that, in presenting this material, it has been necessary for the authors to integrate both the old and the new to afford a comprehensive factual picture of its present status.

The Twelfth Edition of this book carries a new name in addition to the previous two. All of the authors must be congratulated on the industry which has accomplished a revision of this great excellence. The book is of the most importance for reference purposes for all engaged in this branch of scientific medicine. The publishers have added to the physical value of the book by providing a binding which can be cleansed easily.

Hypertension

Renal Hypertension. By E. BRAUN-MENENDEZ, J. C. FASCIOLO, L. F. LELOIR, J. M. MUNOZ and A. C. TAQUINI, Institute of Physiology, faculty of medical sciences and Institute of Cardiology, V. F. Greg Foundation, Buenos Aires, Argentina. Translated by LEWIS DEXTER, M. D., Harvard Medical School and Peter Bent Brigham Hospital, Boston, Mass. Illustrated. Springfield, Ill.: Charles C. Thomas, 1946. Pp. xxx+451. Price $6.75.

This monograph constitutes an important source of information of the large amount of recent investigation on renal hypertension. The modern period is due entirely to Goldblatt who, in 1932, and in a classical report of 1934, gave investigators an easy and sure method of producing permanent hypertension of renal origin by reducing the diameter of the renal artery. New investigations were carried out principally in the United States, Belgium, Argentina and England. The text of the book is based upon the accumulated reported experience in literature and upon the personal experience of this group of investigators.

The authors are particularly qualified to do this. They represent the physiological, chemical, and clinical fields working together in the laboratory of Professor Bernardo A. Houssay in Buenos Aires. Their method of presentation consists of critically reviewing practically all pertinent literature concerned with renal hypertension in the light of available evidence.

Chapters I to XI describe the experimental production and mechanism of permanent hypertension in animals, by resection of the depressor nerves and by modifying the renal circulation; a description of an animal in hypertension from renal ischemia; and the various methods of production of renal hypertension. It is shown that the hypertension is due to a generalized vasoconstriction, in which a pressor substance called rennin, produced from a juxtaglomerular apparatus in the kidney, is present. It has been determined that rennin interacts enzymatically with a component of the alpha-globulin fraction of the liver produced proteid of the plasma, hypertensinogen, to form hypertensin. The pharmacology and other characteristics of these bodies are described. There are differences in the behavior of rennin in different animals. After repeated injections, rennin seems to lose its pressor qualities, but prolonged hypertension may be obtained by the continuous injection of hypertensin. A thermolabile and non-dialyzable substance can be extracted from the kidney, intestinal mucosa, the liver and the red blood cells, which is called hypertensinase, and which destroys hypertension, but the variations of the latter do not seem to influence experimental renal hypertension.

The observations indicate that a normal kidney exercises a protective action on renal hypertension and various reasons for this are described by the authors. This protective action may be attributable to elimination of rennin in the urine, or its destruction by the kidney and other tissues, and by the prevention of uremia which aggravates the hyertension by preventing the destruction of rennin. It is still not clear whether the endocrine glands or pregnancy have any action in the production of renal hypertension.

It is possible that other substances—tyramine, guanidine, etc.,—may cause hypertension, but these effects are doubtful. It appears also that the kidney proper can produce other pressor substances than rennin—tyramine, isoamalymine, etc.,—but their role in hypertension is still not definitely established.

The remaining chapters in the book consider human hypertension including malignant hypertension and the various conditions, especially the many renal lesions, with which it is associated, and the mechanism and associated factors of renal hypertension in man. There is a chapter on medical treatment, and the experimental studies indicate the hope of eventually discovering some specific treatment. The surgical procedures proposed and which are of value include, nephrectomy, nephropexy and sympathectomy. The indications for these are described. The final chapter contains a comparison of human and experimental hypertension and the appendix contains descriptions of technical procedures.

The enormous amount of work done on this subject is reflected by the abundant literature in the bibliography. Conclusions have sometimes been contradictory and excessive. The authors have an extensive firsthand experience which permits them to describe their own valuable contributions and to discuss the problem in critical fashion. This book, in addition to its original contribution wherein lies its true value, constitutes at the present time the most important source of information on the subject, and its reading will not only be instructive but will suggest new ideas and new subjects for study and investigation.

The translator is to be congratulated upon having made a translation that is easily understandable and readable, adequately conveying the thoughts of the original writers. There is a valuable foreword by Professor Houssay. The preparation of the illustrations was done by Mr. James Ufford who also deserves commendation. The publishers are to be congratulated upon the physical excellence of the book as a whole.

Poliomyelitis

The Challenge of Poli. By ROLAND H. BERG, editor of *Everybody's Digest* and the *International Digest.* Introduction by BASIL O'CONNOR, president, The National Foundation for Infantile Paralysis, Inc. New York: The Dial Press, 1946. Pp. 208. Price $2.50.

Although this book is intended for lay consumption, the physician will find the "crusade against poliomyelitis" fascinating. The author has had sound scientific training as bacteriologist and assistant pathologist at a New York hospital and in addition is associate editor of two popular digest magazines. This background

has enabled him to present the facts with medical correctness and in good literary style.

The description of the 1916 epidemic of polio in New York which affected 9000 persons is exciting reading . . . the daily bulletins in the newspapers, the panic of the public, the futile efforts of the physicians, the quacks who traded money for human misery, are penned by a competent reporter. One quack sold a box of cedar wood shavings to be worn around the neck of the exposed or affected child to protect the child from the disease. To the credit of the profession and the police department such persons were brought to justice. However, even then the doctors made some advances. It was found that isolation of children prevented their contracting the disease.

There is a short history of the work of such men as Medin, Wickman, Heine and others. An interesting sidelight is the role played by Franklin D. Roosevelt. He found that hydrotherapy helped him and in 1926 he appeared before the National Convention of Orthopedists and requested that they investigate this form of treatment. This they did, and at the same time Roosevelt personally supported the Georgia Warm Springs Foundation to the extent of placing two-thirds of his fortune into its operation. Of the Sister Kenny method, the author states that whatever is good in it has been salvaged and made available to all. The polio patient will not suffer because of lack of skilled care.

This is an all too uncommon approach in the realm of popular medical literature. There are a number of non-physician writers who, unfortunately, play up the sensational. Mr. Berg is not one of these. He presents a sober yet hopeful picture of the present status of poliomyelitis and concludes with, "Only in the laboratories of medical scientists still seeking the absolute cure or prevention, can the challenge of polio finally be answered".

Hygiene

Hygiene. A Textbook for College Students on Physical and Mental Health From Personal and Public Aspects. By Florence L. Meredith, M. D., Fellow of the American Medical, American Public Health, and American Psychiatric Associations; professor of hygiene and public health, Tufts College. Fourth edition. Illustrated. Philadelphia and Toronto: The Blakiston Co., 1946. Pp. xi+838. Price $4.00.

This is a textbook on hygiene for college students, and taken on that basis, it is an excellent book for an undergraduate course on hygiene or public health, but few physicians would find interest in it.

The aims of the text are to show what health situations exist in life, the course of action taken by the layman, and a general description of public health measures. It is profusely illustrated and very well organized. The various topics covered are: The Health Situation in the United States; the Body in Health and Disease; Forces for Health; The Problem of Infection; Accidents and Poisonings; The Hygiene of Everyday Life; Reproduction; Mental Health. These problems are adequately and clearly explained for the college student.

One chapter, which rarely if ever has been dwelt on in a college text, is the one on "Using Medical Service". Here Dr. Meredith discusses the time a physician should be consulted, the meaning of symptoms, what to expect from a doctor, how to chose a physician, and the status of medical fees. These situations are presented ethically and fairly. More of this sort of text for layman would aid the physician immeasurably. To show that there is a tendency to expect too much or too little from medical science, a case is cited of a girl who expected to reduce 35 pounds in a few days with medical treatment. The patient, according to the author, should expect to get a diagnosis, prognosis, and treatment from the doctor or be willing to undergo necessary diagnostic procedures so that an opinion may be obtained. The confidential relationship of doctor to patient is stressed as well as the importance of giving the doctor a complete history. The author states that if a physician is licensed, he is capable; if a specialist is needed, a general practitioner should be consulted to determine the need and type of specialist required. The choice of governmental medicine versus voluntary medicine is tactfully presented; no conclusion is drawn as to which is better. This insight into the workings of the profession is desirable, for it helps the layman understand the problems that arise and the ethical approach to them.

Pharmacology

Cushny's Pharmacology and Therapeutics. Thoroughly revised by Arthur Grollman, A. B., Ph. D., M. D., F. A. C. P., professor of Medicine and Pharmacology, The Southwestern Medical College; attending physician, The Parkland Hospital, Dallas, Texas; Donald Slaughter, B. S., M. D., dean of the Medical School, University of South Dakota. Thirteenth edition. 74 illustrations. Philadelphia, Pa.: Lea & Febiger, 1947. Pp. 868. Price $8.50.

During recent years, pharmacology has undergone many notable changes and practical advances in chemotherapy, endocrinology and in the use of vitamins. Grollman and Slaughter have incorporated these changes into the thirteenth edition of Cushny's original book and have succeeded at the same time in retaining all of those features which characterized Cushny's original treatise. Some of the older and, perhaps, outmoded material, such as the effect of drugs on isolated organs of an anesthetized animal, have been wisely deleted and the book now conforms to the practical uses of modern therapeutics. The general arrangement of the subject matter is essentially the same as in previous editions. In addition to all the older matter, there are chapters describing and discussing the whole group of sulfa

preparations, penicillin and other antibiotics, vaccines, sera and miscellaneous biologicals. The changes introduced in the twelfth edition as a result of the publication of the decennial revision of the United States Pharmacopeia in 1942, of the British Pharmacopeia of 1932, and of their supplements are continued here.

The revisors and the publishers have each done very well in the latest edition of this well known and justly admired book. The knowledge contained therein in its newest form makes it a "must" in the up-to-date physicians library.

Metabolism

Diseases of Metabolism. Edited by GARFIELD G. DUNCAN, M. D., director of Medical Division, Pennsylvania Hospital; clinical professor of Medicine, Jefferson Medical College, Philadelphia. Second edition. 167 figures. Philadelphia and London: W. B. Saunders Co., 1947. Pp. 1045. Price $12.00.

This type of book, is garnered from as many sound authorities as this one, is always valuable. There has been a very happy choice of authors.

In no field in medicine have new concepts been formulated or old ones discarded in recent years as in the field of metabolism. Yet this is a vitally important field for it is a process common to every person.

As Banting says so clearly in his introduction, the important thing is to correlate the laboratory and the patient. Here this has been done and well. From as many points of view as there are contributors, this is a valuable presentation.

Insufflation

Uterotubal Insufflation. A Clinical Diagnostic Method of Determining the Tubal Factor in Sterility Including Therapeutic Aspects and Comparative Notes on Hysterosalpingography. By I. C. RUBIN, M. D., F. A. C. S., clinical professor of gynecology, College of Physicians and Surgeons, Columbia University; consulting gynecologist, Mount Sinai Hospital; visiting gynecologist, Montefiore Hospital; consulting gynecologist, Beth Israel Hospital, New York. With 159 illustrations including four in color. St. Louis, Mo.: The C. V. Mosby Co., 1947. Pp. 453. Price $10.00.

It is greatly to the author's credit that he sets down here an entirely truthful and unprejudiced report on tubal insufflation, which he first undertook in 1913 and 1914. The purpose is, in any case, to determine the patency or lack of it, the fallopian tubes, and to open them if this be possible, thus relieving female sterility. Although medical literature is well supplied with articles from various authors on this subject, this is the first attempt to unify experiences and present them in book form insofar as we know. The procedure is not without danger, and numerous reporters are cited who have had unpleasant experiences such as rupture of a tube, the blowing of infection into the pelvic "spaces", and retention of such substances as lipiodol for prolonged periods. Rubin is still in search of the "ideal radiopaque substance" and nearly has it in "viscorayopaque" which has a high viscosity. The desirability of taking x-ray pictures after insufflation is a matter for scientific curiosity. One wishes to know, of course, what has been accomplished. The author feels that it is good practice preceding a pelvic exploratory operation.. Then one can at least remove retained lipiodol or whatever has been forced in. Rongy is reported as having had only four untoward results in 400 insufflations; others have not been so fortunate. Answers to a questionnaire brought in a total of some eighty thousand efforts by various workers, and it is largely upon this data that the book has been put together. "The large number of reported cases of pregnancy that have followed insufflation removes all doubt as to its therapeutic value." (P. 138). The urge toward maternity is so strong in many women that they willingly undergo any procedure, dangerous or not, in the hope of conception. It is a strange and highly interesting human phenomenon with a very definite pathetic side in case of failure. Where pregnancy is obtained, these women will never count the cost. The stakes are always high.

Pathology

Text-Book of Pathology. By E. T. BELL, M. D., professor of Pathology, University of Minnesota, Minneapolis, Minn.; contributors B. J. CLAWSON, M. D., professor of Pathology, University of Minnesota, Minneapolis, Minn.; J. S. MCCARTNEY, M. D., associate professor of Pathology, University of Minnesota, Minneapolis, Minn. Sixth edition, enlarged and thoroughly revised. 500 engraved illustrations and 4 color plates. Philadelphia, Pa.: Lea & Febiger, 1947. Pp. 910. Price $10.00.

This is a new enlarged edition of Bell's well-known text-book. Bell's has always been a dependable text covering the entire field of pathological findings. One thing must be emphasized about this text, it is related to diseases in the living patient and not an abstract consideration of pathology in a remote way. To our way of reasoning this is good.

No need to ask why a new edition. Medicine marches on, but fast, and we must keep up with the newer findings.

* * *

Leloir's disease, (*lupus vulgaris erythematoides*), after Henry Camille Leloir, of Lille and Paris. The representation of the disease which bears his name was made in 1891. Leloir had a special interest in tuberculosis, leprosy and skin affection dependent on nerve injuries.

James Clarke White was the pioneer dermatologist of Boston and the first professor of dermatology in the United States. White and Darier independently described the affection which has been known by each of their names, but predominantly by that of Darier. White made many advances in the study and teaching of dermatology and was the author of numerous monographs, of which that on dermatitis venenata remains classic.

SURGICAL DIGEST

By RICHARD A. LEONARDO, M. D.
Rochester, N. Y.

Vagotomy George Crile Jr. prefers subdiaphragmatic vagotomy (through the abdominal incision) to the transthoracic operation. It permits exploration of the upper abdomen and the performance of a pyloroplasty, a gastro-enterostomy, excision of the ulcer, or a subtotal resection, or another operation to prevent postvagotomy gastric retention and the resultant scar is less troublesome. Crile personally prefers pyloroplasty for the average case of duodenal ulcer. For gastric ulcer, in my opinion, it always will be preferable to perform a subtotal gastrectomy because of the potentiality of malignant change occuring in such cases.

Hemoglobinemia Complicating Prostratic Resection Renal failure and death, caused by massive intravascular hemolysis that occured during a transurethral prostatic resection was recently reported by Landsteiner and Finch. The authors then studied 15 patients undergoing this operation and found that distinct hemolysis occurred in ten cases. They feel that this is caused by distilled water which enters the circulation through some of the veins opened during this operation. The substitute use of an isotonic salt solution might seem preferable.

Malignant Ovarian Tumors Ovarian cancer frequently is not diagnosed until operation, or later. Clinically, the patients have lower abdominal pain, menstrual disturbances, and progressive enlargement of the abdomen—but these symptoms are not pathognomonic. Many cases start off as benign cysts or growths, viz; the papillary cystadenomas. Many authorities claim all solid ovarian tumors must be considered as potentially malignant and so treated. This means the radical operation—not removal of the ovary or ovaries alone, but also of the whole of the uterus and both tubes. The attached omentum, if present, also must be removed and intensive postoperative x-ray therapy is indicated to reduce the incidence of recurrence.

Therapy by Sulfa Combinations On the basis of experimental evidence, Fisk et al. advocate the use of a combination of sulfa drugs to prevent the risk of formation of renal calculi. Their mixture consists of sulfamerazine, 26 percent, sulfadiazine 37 percent, and sulfathiazole 37 percent. It is used together with alkali and forced fluids. Therapeutically, the responses have been good and the authors feel that they are followed by a lowered incidence of renal concretions than when any of the sulfa drugs are used alone; they believe the various sulfa compounds are absorbed and excreted independently of each other, hence the patient's urine excretes less sulfadiazine crystals, for instance, than would be the case if he got three times as much sulfadiazine at each dose. This procedure may have some merit.

Simultaneous Gastroscopy with Diagnostic Gastric Roentenoscopy Gastric fixation, especially when due to perigastric adhesions, may be more readily diagnosed by a combination of simultaneous gastroscopy and gastric radiography than by any other means, in the opinion of Ould and Dailey. They tried this method on four cases. Immediately, after emptying the stomach they inserted a 60 c.c. mixture of a saturated aqueous solution of methyl cellulose and diodrast. Then, they inserted the gastroscope, with the patient on his left side, lying on the radiographic table. By this method it was also possible to better visualize the blind areas ordinarily encountered during a gastroscopic examination.

Posttraumatic Arterial Spasm This occasionally occurs as a complication of peripheral lesions which need not necessarily be extensive nor involve the local nerves or blood vessels. Patients complain of impaired function of the part, pain, localized heat, diminished peripheral pulsation in the artery, and occasionally a discolored or blotchy appearance to the skin. The persistent ischemia present, due to the prolonged local spasm, eventually causes localized trophic disturbances. All these disturbances may be overcome and local function greatly improved by a suitable sympathectomy.

Transthoracic Vagotomy Recent evidence indicates that transthoracic or even subdiaphragmatic vagotomy alone causes so many disturbances in gastrointestinal function that it will not become, per se, the standard form of surgical therapy for medically-resistent peptic ulcers. However, it may be indicated as the treatment of choice in stomal ulcers after a previous subtotal gastrectomy. Vagotomy heals the ulcers in virtually all cases, but it causes objectionable gastric obstruction and retention. It even may be useful in patients requiring also a gastroenterostomy since symptoms of retention in such people would be slight, providing a large gastroenterostomy opening is made.

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NOVEMBER 1947

Medicolegal Notes

Board's Discretion in Restoration of License

A proceeding was brought under Article 78 of the New York Civil Practice Act, in the nature of Mandamus, to compel the Board of Regents to restore to the petitioner his medical license which he had forfeited upon his conviction of a felony. The offense was an illegal abortion which resulted in the death of the patient. Subsequent to the conviction the Board revoked and cancelled the petitioner's medical license. Petitioner received a pardon from the then Governor of the State, but this was not predicated on innocence of the crime for which he had been convicted.

The New York Appellate Division, denying the petitioner's application, held that on the evidence in the record before it, its power of review was limited to a consideration of the single question whether the action of the Board of Regents, in denying the petitioner's application, was arbitrary, unfair or capricious; that it was for the petitioner to prove, and not for the Regents to disprove that fact. The petitioner was held to have the burden of submitting to the Regents satisfactory evidence "so ineluctable in its implications that it would compel affirmative action from a Board which has discretion to restore or to refuse to restore. Refusal to restore a license is like a refusal to certify a doctor on grounds of "Eminence and authority" (Marbag v. Cole, 286 N. Y. 202, 136 A. L. R. 734) or refusal of a doctors' license from another state or country said to have "substantially the equivalent of the requirements in force in this State'." The evidence was held insufficient to show that the Board's action was arbitrary, unfair, or capricious. Jablon v. Board, 271 App. Div. 369, 66 N. Y. S. 2d 340.

Excessive Damages

In an action for personal injuries sustained by an employee while working on the premises of the defendant, his employer, it was held that the trial court was within its permitted discretion in requiring a reduction by remittitur of $750 from $2,000 damages awarded the employer by the jury for a scratched and bruised ankle, a sore on the bruised area, swelling and leg pains, and decreased ability to perform manual labor. Western Union Telegraph Co. vs. Coker, Texas Court of Civil Appeals, 202 S. W. 2d 710.

A verdict awarding a woman $10,000 for injuries to her head and back, a bruised and swollen arm and shoulder, torn ligaments, acute bursitis, nervous shock, the permanent fusing of a portion of her spine, caused by trauma, and permanent structural and organic changes in her central nervous system, necessitating alphetron treatments twice weekly for three weeks, nerve sedatives, heat applications and the carrying of her arm in a sling, was held excessive by $3,000 in an action for personal injuries sustained by plaintiff as a passenger in a street car which collided with another street car. Arnt vs. St. Louis Public Service Co., Mo., App., 202 S. W. 2d 787.

False Labels Must "Accompany" Drugs to Constitute Misbranding

Where allegedly false drug labels were shipped to the consignee of the drugs 71 days before the drug was shipped, it was held that the labels did not "accompany" the drug within the meaning of the Federal Food, Drug and Cosmetic Act, so that there was no misbranding of the drug and no violation of the act. Alberty vs. United States, Ninth Circuit Court of Appeals, 159 F. 2d 278.

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Damages for Failure to Attend Childbirth

In an action against a physician for damages for alleged failure to attend and treat the plaintiff while she was pregnant, resulting in a miscarriage, the relationship of patient and physician was established between the parties. The defendant, who lived about two hundred and fifty yards from the plaintiff's home, assumed to give her reasonably necessary attention and treatment throughout the confinement. About three months before the child was expected, after recovering from a flow which had commenced and stopped, and feeling well, the plaintiff awoke in pain about four o'clock Sunday morning. Without knowing it, she was having labor pains, and the child was born between twelve and one o'clock. Her husband "telephoned the doctor about 9 A.M. to come and not until a fourth call informing him that the miscarriage had taken or was taking place did the doctor arrive." Other facts appear in the appellate court's opinion. No claim was made for the death of the child. A nonsuit was granted; the plaintiff brought exceptions, and a new trial was granted by the New Hampshire Supreme Court, Mehigan vs. Shechan, 51 A.2d 632, for the following reasons:

"When the defendant agreed to the relationship of physician and patient," the court said, "he became obligated to use reasonable care in attending and treating the plaintiff. Liability might be found if a physician or a surgeon 'had acted from negligence or carelessness, contrary to what must have been his better knowledge and judgment, if he had given proper attention to the case.' Leighton vs. Sargent, 27 N. H. 460, 475." No claim was made that the defendant did not have the knowledge, training, skill and other qualifications of the ordinary practitioner of his profession in the same place or in similar localities.

The court quoted from the authorities the rule with regard to the need of expert testimony in an action for malpractise, as follows: "expert testimony is not necessary for the proof of negligence in nontechnical matters, or those of which a person may be expected to have knowledge." The issues raised by the plaintiff in this case were held to be within the intelligent comprehension of a jury. They included whether or not the defendant forgot to treat for the breasts after the miscarriage, whether two alleged telephone calls were made on Sunday morning and whose fault it was, if such calls were put through, that the plaintiff's need of medical attention was not made known to the defendant. "Whether plaintiff was suffering terribly or suffering sufficiently so that reasonable care entitled her to have the attendance and help of her physician

(Turn to Page 700)

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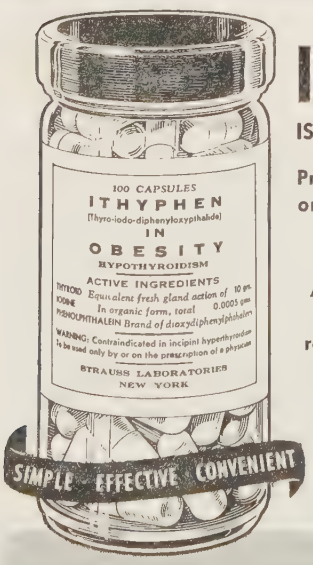

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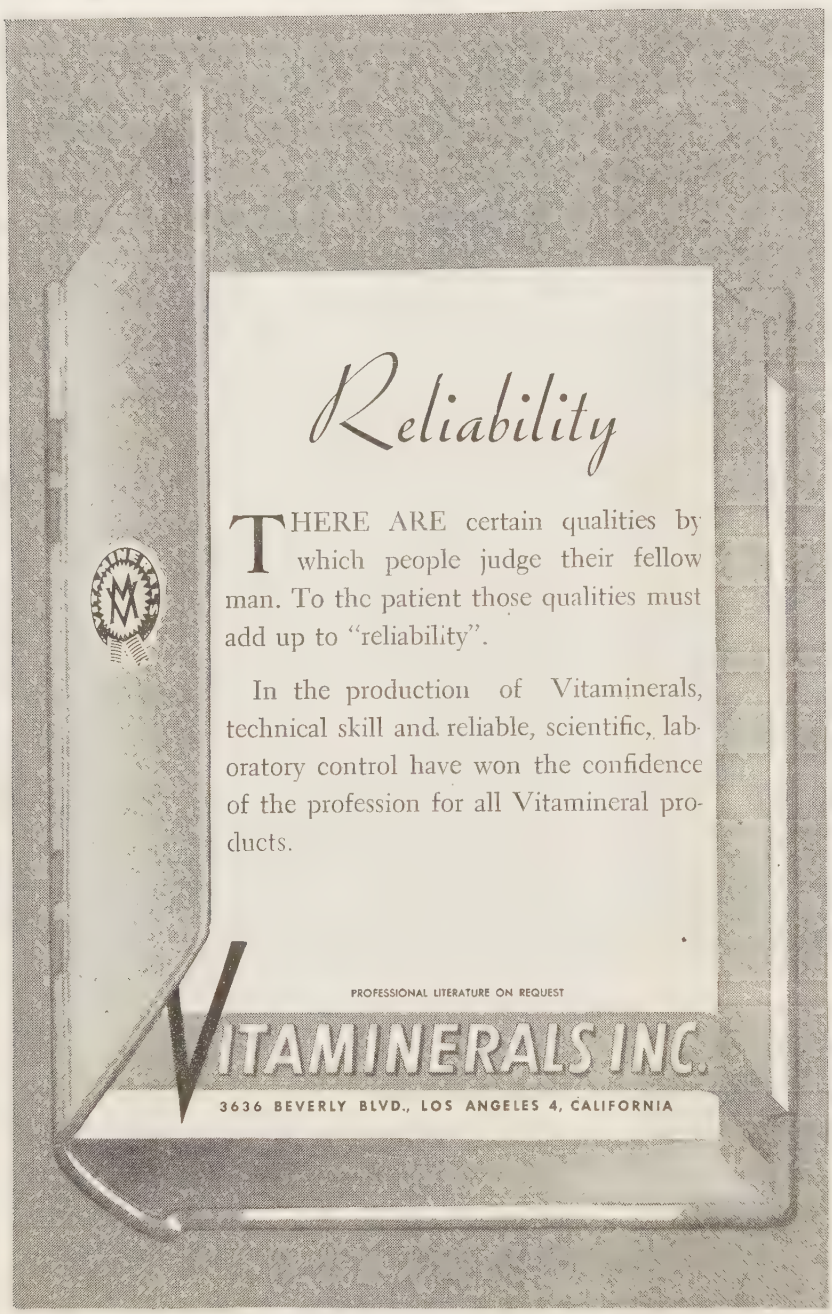
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Birth Rate and Life Expectation

According to a recent *Statistical Bulletin* issued by the Metropolitan Life Insurance Co., there is every indication that the number of births in our country in 1947 will exceed the 3,440,000 mark set last year, and establish a new all-time high record. Through May of the current year there were, according to provisional figures, about 1,572,000 births in the United States as against approximately 1,116,000 in the corresponding period of 1946. This is an increase of about 456,000 babies, or of more than 40 percent.

The expectation of life at birth among American wage-earners and their families has already established a new historic record. Last year it passed the 65-year mark to reach a figure of 65.57.

The gain in longevity between 1945 and 1946 was concentrated almost entirely among males. Last year the expectation of life at age 5 was 61.60 for white males, 66.62 for white females, 58.20 for colored males, and 60.28 for colored females.

The expectation of life for physicians in the United States is essentially the same as that for the general white population at the same ages. At age 45, the average physician may expect to live an additional quarter century, and at 65, often regarded as retirement age, he may still look forward to almost 12 years of life. Women physicians start out with an advantage of 3½ years over the men at age 25, but this margin is reduced to less than 1½ years by age 65.

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Affiliated-Unit Program To Be Re-established

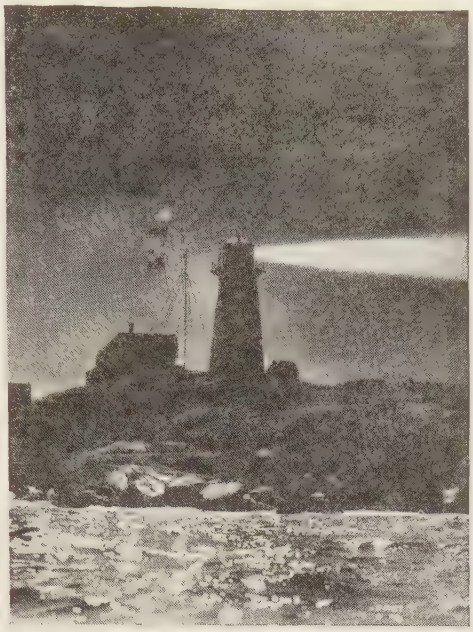
The War Department is preparing to re-establish the affiliated-unit program, proven through the experience of two major wars, on a greatly expanded scale. Civilian organizations will be invited to sponsor medical units which will be organized and trained in a Reserve status so as to be ready to take to the field quickly in event of emergency.

It is proposed, as an initial objective, to approach the civilian medical schools and hospitals which sponsored Medical Department units during World War II. Later, new sponsors may be added. These institutions will be asked to sponsor the same or similar types of hospitals as they sponsored in World War II: general, evacuation, and surgical-type. Other types of units may be included in the program at a later date.

VA Inaugerates Heart Center

Heart disease, which is listed as the most frequent cause of death among veterans, will be given "microscope preference" at the Veterans Administration Mount Alto Hospital, Washington, D. C., at its new intensive research center.

Dr. George P. Robb, cardiologist and assistant medical director of the Metropolitan Life Insurance Company, acted as supervisor of the development and will continue as consultant to the cardiovascular research unit. Its threefold purpose



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can under the facts of this case be passed upon by the jury without the aid of experts. The calling and need of physicians are matters of common experience." The court repeated that no question was raised in this case of the standards of professional skill "but simply of negligent failure to give such medical care as would have been exercised if it were not for the alleged negligence."

There was evidence from which a jury could find causal negligence of the defendant physician that resulted in unnecessary physical and mental suffering. Because of the flowing the doctor knew that the chances were against a normal delivery. It was held for the jury to say whether the defendant gave proper consideration to what he knew about the plaintiff's case, whether he used due care in eliciting information from the husband at the times of the first two telephone calls, if they occurred, that would have informed him that the plaintiff was in labor and whether he was negligent in not attending the plaintiff before she had gone to the bathroom where the birth had taken place. It could be found, the court continued, that the defendant prescribed no treatment for the milk condition in the breasts until Thursday. The testimony of a neighbor that defendant said, concerning this treatment, "I forgot. I should have done something about that," was held to make a clear issue of due care.

There was no showing that plaintiff or her husband were conclusively guilty of contributory negligence. This was the first child for the couple; they acted according to their best lights, and the evidence was that the plaintiff was cooperative and at all times followed the defendant's advice and directions.

On the question of the extent of damages recoverable, the court said: "Damages cannot be given for the mere fact of the miscarriage. The evidence is that this would have occurred anyway. Nor can they be given for the physical and mental suffering that the wife would have endured under the usual circumstances that would have accompanied the miscarriage. The plaintiff is entitled to recover, however, for any and all pains of childbirth and for the following bodily conditions that were not prevented or eased because of the negligent failure of the physician to attend or to prescribe. If the defendant had been in attendance the child would have been born in bed, narcotics or other medicines could have been prescribed to relieve the pains of the mother and other medical care of her taken." The plaintiff could recover for injured feelings attending the happening of the birth in the way it did. "Present mental suffering due to the immediate realization of what is occurring or has occurred that is not grief in retrospect is compensable." Prescott v. Robinson, 74 N. H. 460.

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of operation is to conduct scientific investigations, serve as a training center for VA doctors, and hold a consultation service.

An initial project of the center will be to perfect a comparatively new technique of x-raying the internal structure and behavior of the human heart. A special opaque substance is injected into the veins and as this substance is swept through the heart chambers and large vessels it casts shadows which show up on x-ray films. The entire process requires about eight seconds, but during that period a thorough examination of the heart in action may be made.

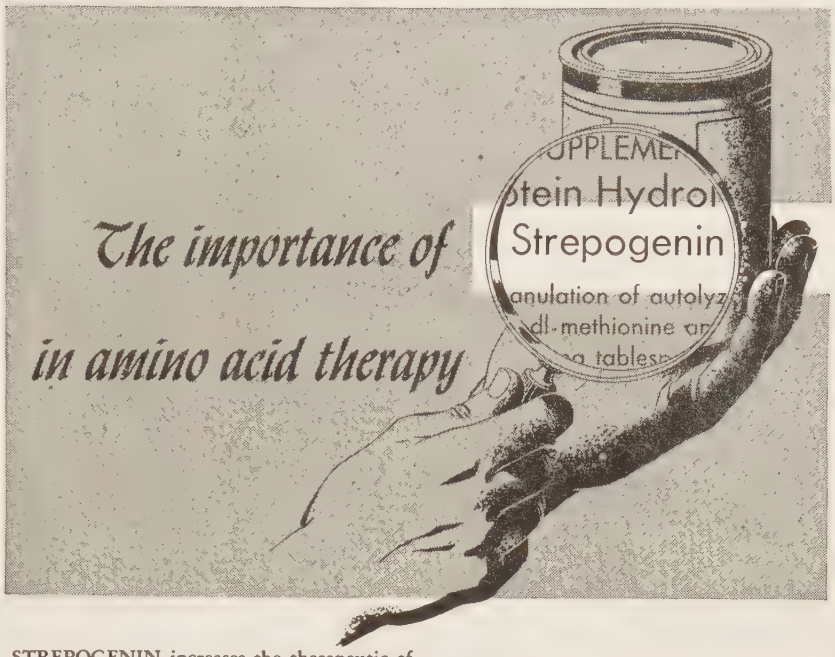
This technique, originally developed by Dr. Robb and associates at Bellevue Hospital, New York, is used to diagnose obscure heart and chest conditions.

Grasslands Joins Regional Group

Grasslands Hospital, Valhalla, New York, is the most recent participant in the new Regional Plan launched last month by New York University College of Medicine to make its facilities available to suburban and rural hospitals.

The Grasslands Hospital, which is maintained by Westchester County, will send a contingent of five doctors to the sessions created under the plan. It will be the largest delegation from any of the participating members.

The program is designed to bring to independent, non-teaching hospitals the advantages of a working relationship with a university medical school.



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Recently, the editorial board of the American Medical Association,[1] having reviewed the experimental studies on strepogenin, stated that "... the therapeutic effectiveness of hydrolyzed proteins and pure amino acid mixtures may be limited by the absence of this new peptide factor (strepogenin)... the addition of the factor strepogenin to hydrolyzed proteins and to amino acid mixtures may well be expected to improve their therapeutic value in man as it has been found to do in the experimental animal."

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Domeboro is the trade name for the patented, modernized form of Aluminum Acetate (Burow's Solution 1:20). Hundreds of millions of tablets have been used all over the world by the U. S. Army, Navy, Red Cross, Veteran's Administration, UNRRA and the U. S. Public Health Service.

Pneumonia Vaccine

A vaccine which makes possible the prevention of the most common types of pneumonia, was announced recently by E. R. Squibb & Sons, New York 22.

A single subcutaneous injection of this immunizing agent, known as Solution of Pneumococcus Polysaccharides (Type-specific), builds resistance to the most prevalent types of pneumococcal or lobar pneumonia. Immunity usually develops within two weeks and is effective for at least one year. Tested over a period of 15 years during which time nearly 100,000 persons have been immunized with various combinations of pneumococcus polysaccharides, no serious adverse reactions were found to accompany vaccination.

The vaccine, however, is not effective in the treatment of a person already ill with pneumonia, nor is it effective against the virus type of the disease.

Solution of Pneumococcus Polysaccharides is produced from the enveloping wall of the micro-organism, rather than from the body of the organism itself. Its extreme purity makes immunization possible with a minimum of injected material.

Solution of Pneumococcus Polysaccharides (Type-specific) Squibb is supplied in two combinations (A and B) containing types to which adults and children, respectively, are believed to be most susceptible. It comes in 1 cc. rubber-stoppered vials, in boxes of 5; and in 5 cc. rubber-stoppered vials, in boxes of 10. The dosage for adults and children over 12 years of age consists of a single 1 cc. injection, subcutaneously; for children under that age, the dose is 0.5 cc.

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Immunization Film Completed

Encyclopaedia Britannica Films have recently announced the completion of *Immunization,* latest in the series of biological science films produced for use in junior and senior high schools. After more than two years of working in close cooperation with leading authorities in the field of immunology this new one-reel film was produced.

The motion picture combines animation and live photography to show external symptoms of disease and how they affect the bloodstream. It further illustrates how immunity is achieved, either by surviving the disease or by vaccination.

New Germicidal Unit

A new germicidal unit that will destroy airborne bacteria in as little as eight seconds has been announced by the Duro Test Corporation of North Bergen, N. J. The new unit will be produced in two types; the first to kill airborne bacteria through indirect radiation and the second to destroy molds, bacteria virus and fungus through direct radiation, on surfaces and in liquids.

Used indirectly and mounted above eye level, the new germ killer will have a wide variety of uses for purifying air in manufacturing establishments and public buildings. Used directly it will destroy germs, molds and fungus on surfaces and in liquids in food processing plants and other businesses where food is handled.

The new Duro Test germicidal lamps incorporated in these units will be produced in two lengths—15 watts in 18 inches and 30 watts in 36 inches. Rated life of the lamps is 4,000 hours in three hour cycles.

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Narakon Nasal Solution (with Desoxyephedrine or Plain), the first of a new line of ethical products, has just been introduced to the profession by Baybank Pharmaceuticals, Inc., New York 4, the ethical products division of the Chesebrough Manufacturing Co., Cons'd. This modern aqueous nasal solution reportedly provides fully effective nasal therapy, yet permits controlled employment of vasoconstrictive action. Laboratory tests have shown that it is antiseptic, detergent, decongestive and palliative.

Narakon contains Benzalkonium chloride (1:3500) and Allantoin in an aromatized, isotonic aqueous solution buffered to a pH of 6. Available Plain or with dl-Desoxyephedrine hydrochloride (1 percent) as vasoconstrictor.

Narakon (Plain) is indicated in upper respiratory conditions among diabetics, pregnant women and older persons, as well as among hypertensives, arteriosclerotics, etc., where ephedrine or ephedrine-like drugs are usually contraindicated. While Narakon (with Desoxyephedrine) is suited where nasal decongestion is indicated, after which Narakon plain may be administered over protracted periods, if desired.

Recommended dosage is 2-3 drops or 2-3 atomizer squirts or nasal packs, repeated every 2-6 hours as necessary. Professional supervision is necessary when Narakon with vasoconstrictor is administered to patients with heart disease, high blood pressure, diabetes or thyroid disease. Narakon Plain may be administered freely. Supplied in 1 fluidounce bottles with dropper assembly.

Grant Chemical Introduces Procardium

Grant Chemical Co., Inc., 95 Madison Avenue, New York, manufacturers of specialties of the heart and blood vessels, have just introduced a new cardiac and vasomoter stimulant, Procardium.

Procardium consists of digitoxin 0.05 mg., Strophanthin-k 0.05 mg. and Strychnine Sulphate 0.10 mg. in enteric coated tablets. It is indicated for therapy or prophylaxis in cardiovascular cases requiring heart and vasomoter stimulation; for such conditions as heart failure, myocardial insufficiency, senile myocarditis; chronic passive congestion and weakness of heart musculature.

Army-Navy Medical Supply Catalogue Issued

The first joint Army-Navy catalogue of medical military material has been issued. In distribution this book will go to every Army and Navy medical and hospital facility.

The 7,823 items listed range from penny-class expendables, such as tongue depressors and dental burs, to therapeutic x-ray units in the $10,000 field. Items are divided, by types, into 14 classes.

There are 5,026 JAN items; that is, items which are adaptable for both Army and Navy use. In addition, there are 1,581 Army-only and 373 Navy-only entries. The remainder of the listings are on "limited service" supply, which means that their procurement and allocation are in process of gradual discontinuance. In this category, 429 are Army-only, 327 Navy-only and 87 in joint use.

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1. **A sustained reduction in blood pressure.**
2. **Relief from subjective symptoms.**

For optimum results the action of a hypotensive drug should be gradual and prolonged. The fall in blood pressure produced by Hepvisc begins from fifteen to thirty minutes after administration, reaches its maximum in from one to two hours, and persists for from four to six hours.

The effectiveness of Hepvisc in controlling the headache, dizziness, tinnitus and other cerebral symptoms of hypertension is particularly gratifying to many patients.

Dosage: 2 tablets three or four times daily as needed.

Supplied in bottles of 50 tablets, 500's and 1000's.

HEPVISC

Trade mark, reg. U. S. Pat. Office

Hexanitrate of Mannitol--Viscum Album

Anglo-French Laboratories, Inc.

75 Varick St., New York 13, N. Y.

HEYDEN PENICILLIN PRODUCTS

* No refrigeration required

PACKAGE INFORMATION

PENICILLIN SODIUM—amorphous and crystalline forms: Vials containing 100,000, 200,000, 500,000, and 1,000,000 units.

PENICILLIN IN OIL AND WAX: 100,000, 200,000, and 300,000 units per cc.—5-cc. vials; also, 300,000 units per cc. in 10-cc. vials, and 1-cc. cartridge with needle.

TABLETS PENICILLIN CALCIUM (Buffered): 50,000- and 100,000- unit tablets, individually sealed in aluminum foil. Boxes of 12 and 120.

FINE HEYDEN CHEMICALS

HEYDEN

CHEMICAL CORPORATION

393 SEVENTH AVE., NEW YORK 1, N. Y.

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